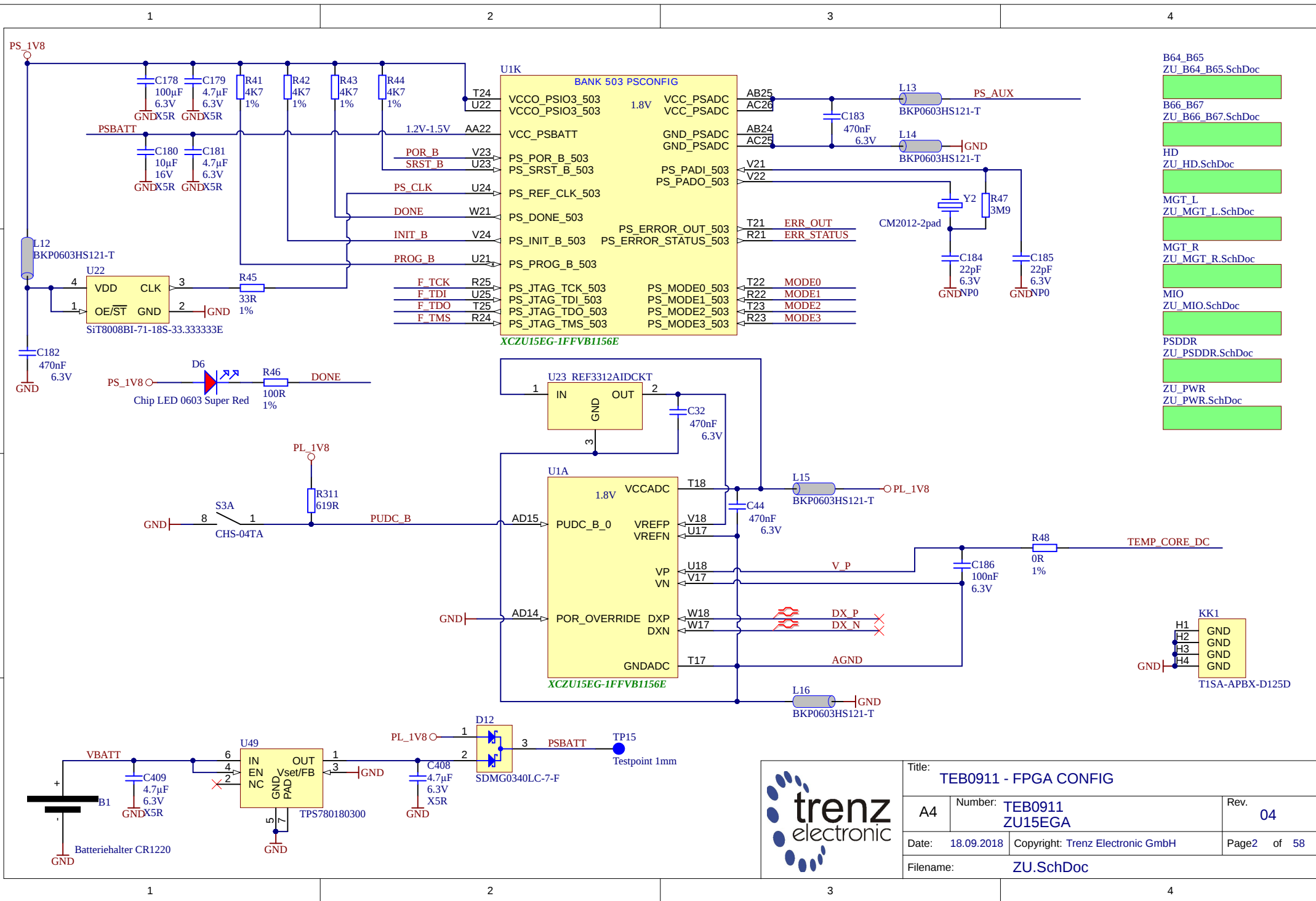




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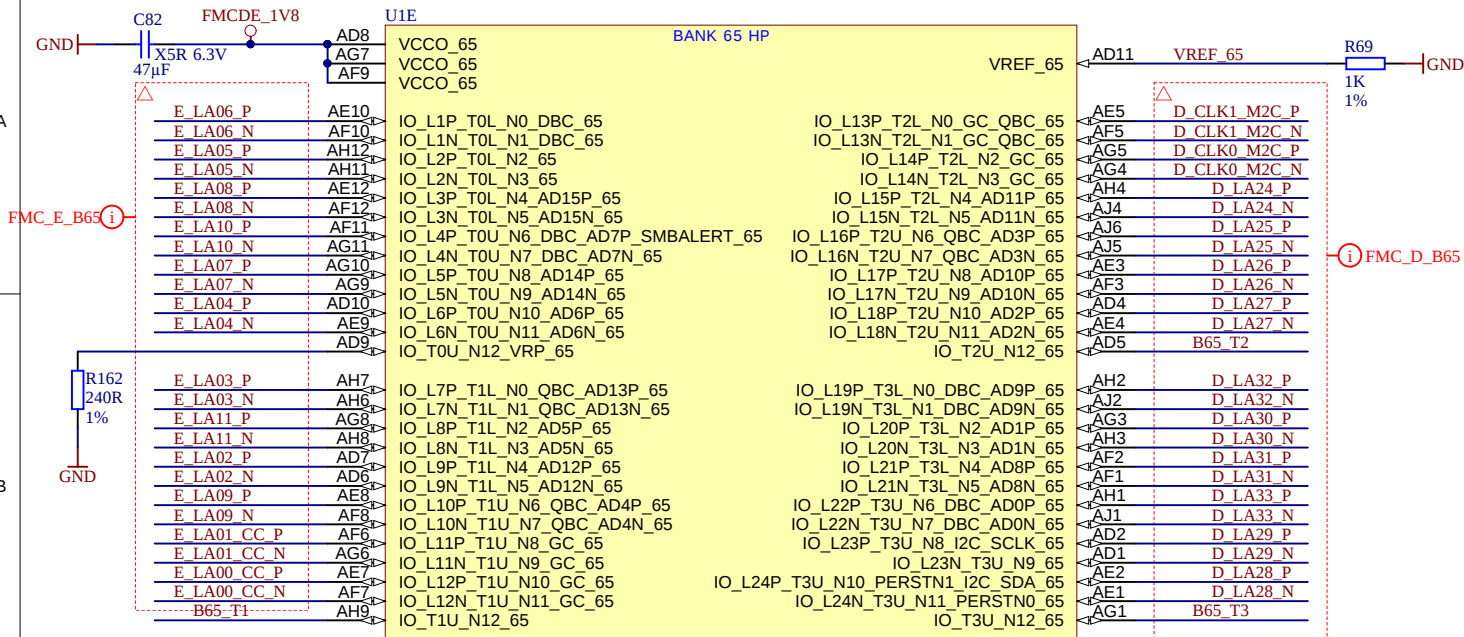
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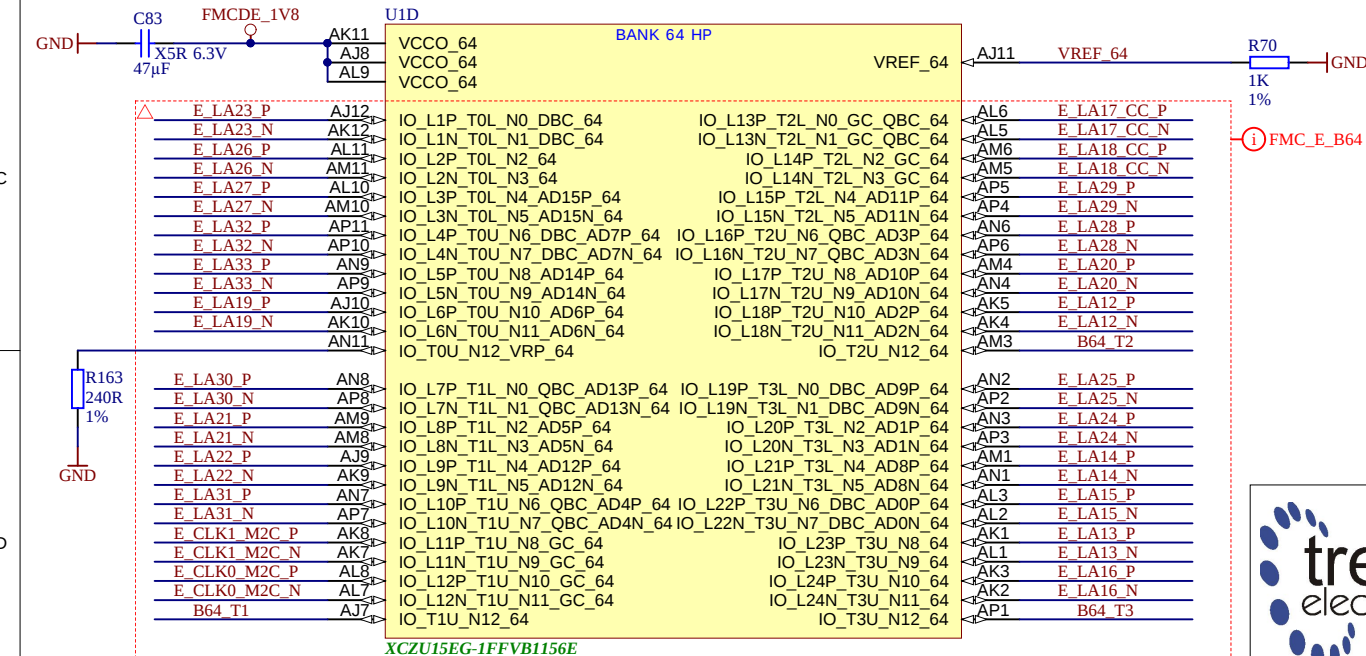
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XCZU15EG-1FFVB1156E



XCZU15EG-1FFVB1156E



Title: TEB0911 - FPGA B64 B65			
A4	Number: TEB0911 ZU15EGA		Rev. 04
Date: 18.09.2018	Copyright: Trenz Electronic GmbH		Page3 of 58
Filename: ZU_B64_B65.SchDoc			

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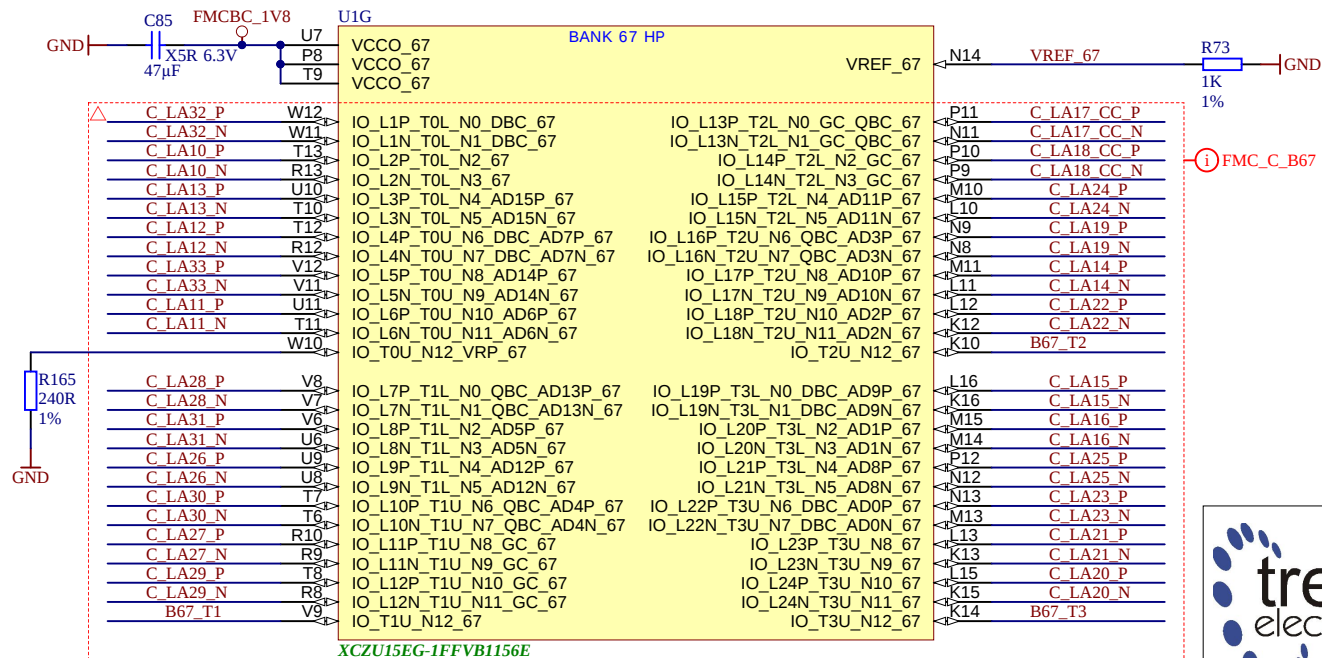
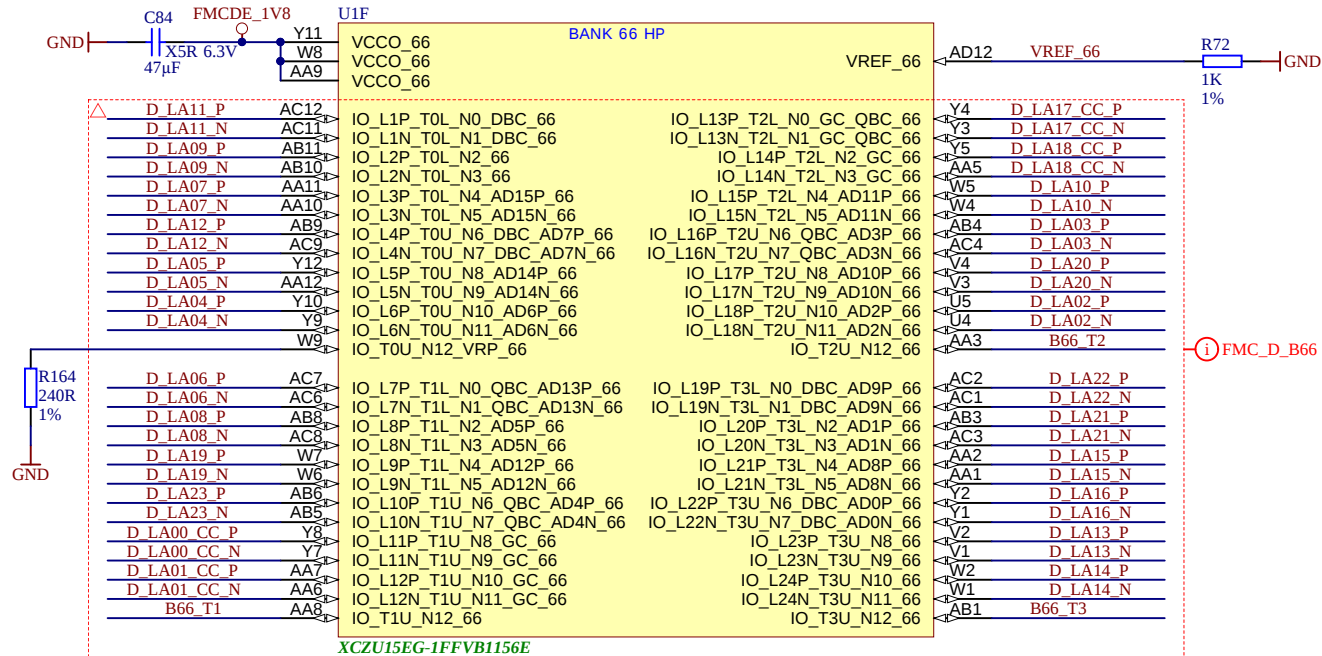
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Title: TEB0911 - FPGA B66 B67			
A4	Number: TEB0911 ZU15EGA		Rev. 04
Date: 18.09.2018	Copyright: Trenz Electronic GmbH		Page4 of 58
Filename: ZU_B66_B67.SchDoc			

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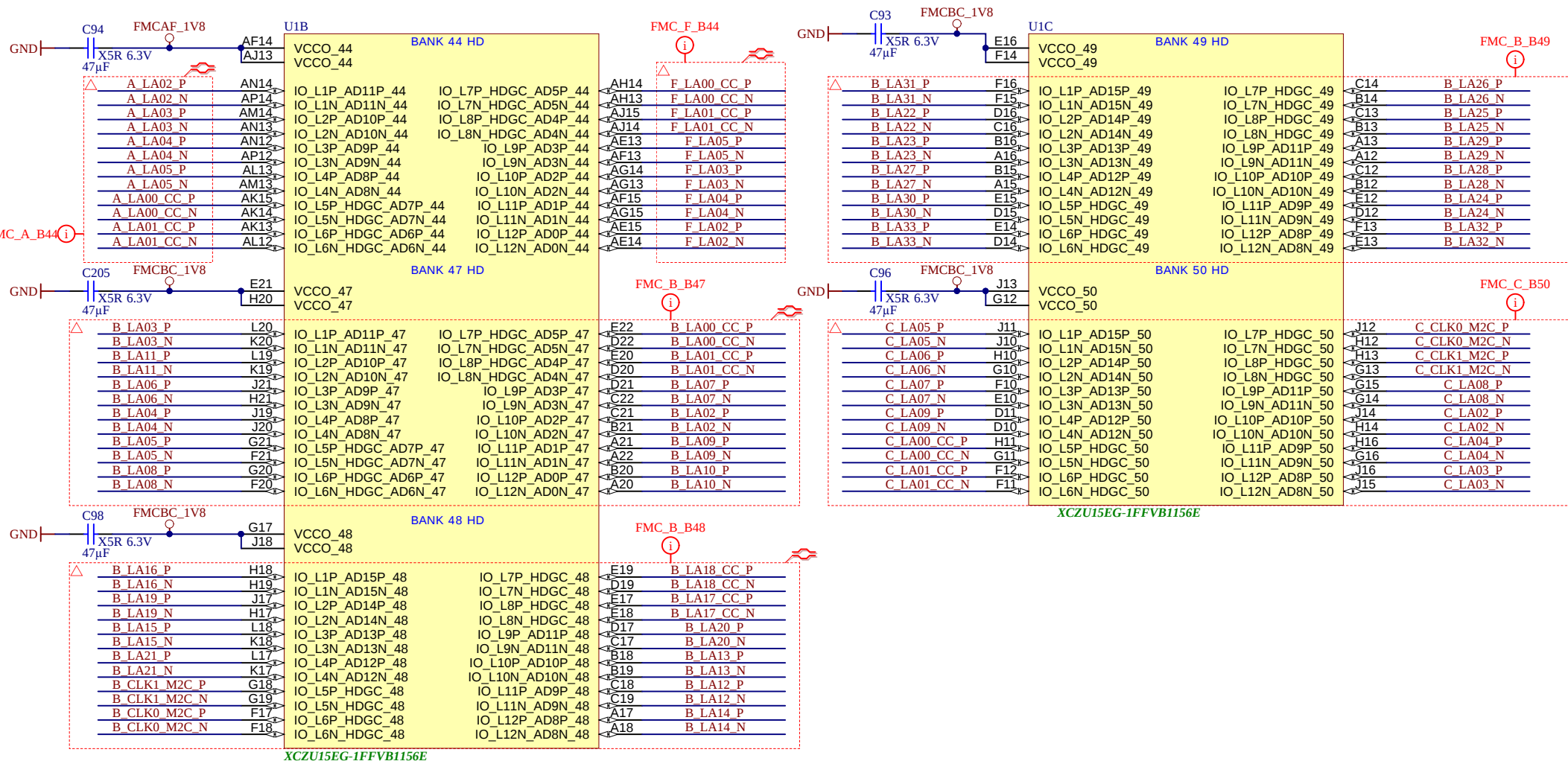
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XCZU15EG-1FFVB1156E



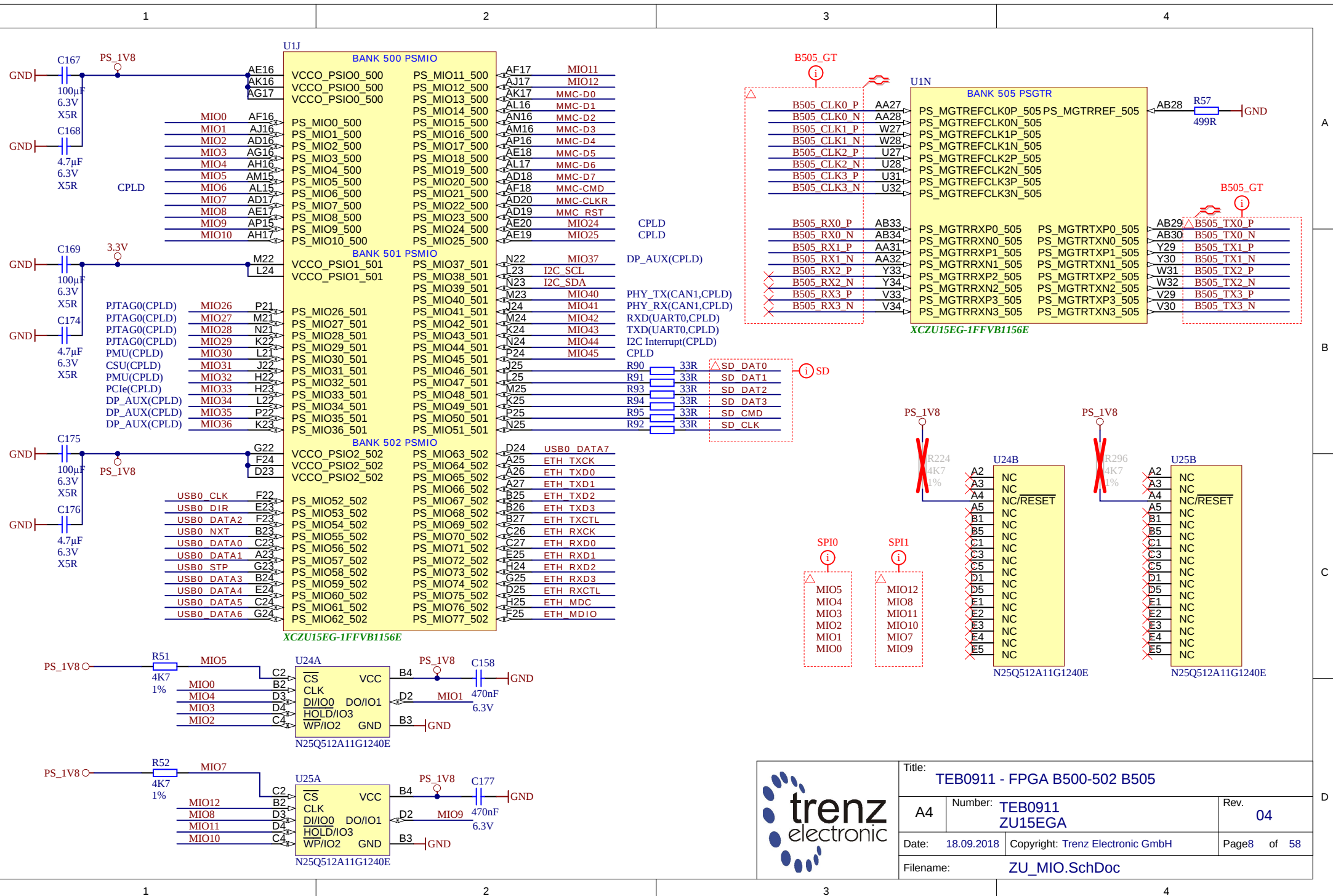
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A4	Number: TEB0911 ZU15EGA		Rev. 04
Date: 18.09.2018	Copyright: Trenz Electronic GmbH		Page5 of 58
Filename: ZU HD.SchDoc			

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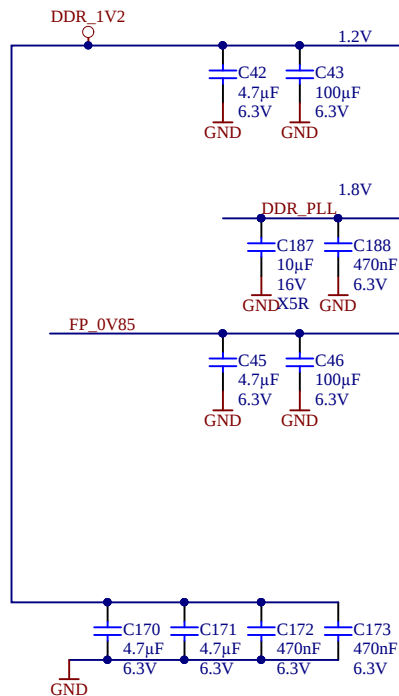


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ADDR_CMD_CTRL

DDR4-A[0..16]
DDR4-CS_N0
DDR4-CS_N1
DDR4-BA0
DDR4-BA1
DDR4-BG0
DDR4-BG1
DDR4-PAR
DDR4-ACT
DDR4-ODT0
DDR4-ODT1
DDR4-CKE0
DDR4-CKE1
DDR4-CLK0_P
DDR4-CLK0_N
DDR4-CLK1_P
DDR4-CLK1_N

LANE0

DO[0..7]
DDR4-DQS0_P
DDR4-DQS0_N
DDR4-DM0

LANE1

DO[8..15]
DDR4-DQS1_P
DDR4-DQS1_N
DDR4-DM1

LANE2

DO[16..23]
DDR4-DQS2_P
DDR4-DQS2_N
DDR4-DM2

LANE3

DO[24..31]
DDR4-DQS3_P
DDR4-DQS3_N
DDR4-DM3

LANE4

DO[32..39]
DDR4-DQS4_P
DDR4-DQS4_N
DDR4-DM4

LANE5

DO[40..47]
DDR4-DQS5_P
DDR4-DQS5_N
DDR4-DM5

LANE6

DO[48..55]
DDR4-DQS6_P
DDR4-DQS6_N
DDR4-DM6

LANE7

DO[56..63]
DDR4-DQS7_P
DDR4-DQS7_N
DDR4-DM7

LANE_ECC

CB[0..7]
DDR4-DQS8_P
DDR4-DQS8_N
DDR4-DM8

U1L

BANK 504 PSDDR

VCCO_PSDDR_504 PS_DDR_CK0_504
VCCO_PSDDR_504 PS_DDR_CK_N0_504
VCCO_PSDDR_504 PS_DDR_CKE0_504
VCCO_PSDDR_504 PS_DDR_CK1_504
VCCO_PSDDR_504 PS_DDR_CK_N1_504
VCCO_PSDDR_504 PS_DDR_CKE1_504
VCC_PSDDR_PLL PS_DDR_A0_504
VCC_PSDDR_PLL PS_DDR_A1_504
VCC_PSDDR_PLL PS_DDR_A2_504
VCC_PSDDR_PLL PS_DDR_A3_504
VCC_PSDDR_PLL PS_DDR_A4_504
VCC_PSDDR_PLL PS_DDR_A5_504
VCC_PSDDR_PLL PS_DDR_A6_504
VCC_PSDDR_PLL PS_DDR_A7_504
VCC_PSDDR_PLL PS_DDR_A8_504
VCC_PSDDR_PLL PS_DDR_A9_504
VCC_PSDDR_PLL PS_DDR_A10_504
VCC_PSDDR_PLL PS_DDR_A11_504
VCC_PSDDR_PLL PS_DDR_A12_504
VCC_PSDDR_PLL PS_DDR_A13_504
VCC_PSDDR_PLL PS_DDR_A14_504
VCC_PSDDR_PLL PS_DDR_A15_504
VCC_PSDDR_PLL PS_DDR_A16_504
VCC_PSDDR_PLL PS_DDR_A17_504
PS_DDR_CS_N0_504
PS_DDR_CS_N1_504
PS_DDR_BA0_504
PS_DDR_BA1_504
PS_DDR_BG0_504
PS_DDR_BG1_504
PS_DDR_PARITY_504
PS_DDR_RAM_RST_N_504
PS_DDR_ACT_N_504
PS_DDR_ALERT_N_504
PS_DDR_ZQ_504
PS_DDR_ODT0_504
PS_DDR_ODT1_504

XCZU15EG-1FFVB1156E

AN26 DDR4-CLK0_P
AN27 DDR4-CLK0_N
AN29 DDR4-CKE0
AL26 DDR4-CLK1_P
AL27 DDR4-CLK1_N
AJ27 DDR4-CKE1
AP29 DDR4-A0
AP30 DDR4-A1
AP26 DDR4-A2
AP27 DDR4-A3
AP25 DDR4-A4
AN24 DDR4-A5
AM29 DDR4-A6
AM28 DDR4-A7
AM26 DDR4-A8
AM25 DDR4-A9
AL28 DDR4-A10
AK27 DDR4-A11
AJ25 DDR4-A12
AL25 DDR4-A13
AK25 DDR4-A14
AK24 DDR4-A15
AM24 DDR4-A16
AF25 DDR4-A17
AN28 DDR4-CS_N0
AL30 DDR4-CS_N1
AH26 DDR4-BA0
AG26 DDR4-BA1
AK28 DDR4-BG0
AH27 DDR4-BG1
AF20 DDR4-PAR
AF21 DDR4-RESET
AG25 DDR4-ACT
AF22 DDR4-ALERT
AF23
AM30 DDR4-ODT0
AJ26 DDR4-ODT1

R2
240R
GND

U1M

BANK 504 PSDDR

PS_DDR_DQ0_504 PS_DDR_DQ32_504
PS_DDR_DQ1_504 PS_DDR_DQ33_504
PS_DDR_DQ2_504 PS_DDR_DQ34_504
PS_DDR_DQ3_504 PS_DDR_DQ35_504
PS_DDR_DQ4_504 PS_DDR_DQ36_504
PS_DDR_DQ5_504 PS_DDR_DQ37_504
PS_DDR_DQ6_504 PS_DDR_DQ38_504
PS_DDR_DQ7_504 PS_DDR_DQ39_504
PS_DDR_DQ8_504 PS_DDR_DQ40_504
PS_DDR_DQ9_504 PS_DDR_DQ41_504
PS_DDR_DQ10_504 PS_DDR_DQ42_504
PS_DDR_DQ11_504 PS_DDR_DQ43_504
PS_DDR_DQ12_504 PS_DDR_DQ44_504
PS_DDR_DQ13_504 PS_DDR_DQ45_504
PS_DDR_DQ14_504 PS_DDR_DQ46_504
PS_DDR_DQ15_504 PS_DDR_DQ47_504
PS_DDR_DQ16_504 PS_DDR_DQ48_504
PS_DDR_DQ17_504 PS_DDR_DQ49_504
PS_DDR_DQ18_504 PS_DDR_DQ50_504
PS_DDR_DQ19_504 PS_DDR_DQ51_504
PS_DDR_DQ20_504 PS_DDR_DQ52_504
PS_DDR_DQ21_504 PS_DDR_DQ53_504
PS_DDR_DQ22_504 PS_DDR_DQ54_504
PS_DDR_DQ23_504 PS_DDR_DQ55_504
PS_DDR_DQ24_504 PS_DDR_DQ56_504
PS_DDR_DQ25_504 PS_DDR_DQ57_504
PS_DDR_DQ26_504 PS_DDR_DQ58_504
PS_DDR_DQ27_504 PS_DDR_DQ59_504
PS_DDR_DQ28_504 PS_DDR_DQ60_504
PS_DDR_DQ29_504 PS_DDR_DQ61_504
PS_DDR_DQ30_504 PS_DDR_DQ62_504
PS_DDR_DQ31_504 PS_DDR_DQ63_504
PS_DDR_DQ64_504
PS_DDR_DQ65_504
PS_DDR_DQ66_504
PS_DDR_DQ67_504
PS_DDR_DQ68_504
PS_DDR_DQ69_504
PS_DDR_DQ70_504
PS_DDR_DQ71_504
PS_DDR_DQS_P0_504
PS_DDR_DQS_N0_504
PS_DDR_DQS_P1_504
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PS_DDR_DQS_N3_504
PS_DDR_DQS_P4_504
PS_DDR_DQS_N4_504
PS_DDR_DQS_P5_504
PS_DDR_DQS_N5_504
PS_DDR_DQS_P6_504
PS_DDR_DQS_N6_504
PS_DDR_DQS_P7_504
PS_DDR_DQS_N7_504
PS_DDR_DQS_P8_504
PS_DDR_DQS_N8_504
PS_DDR_DM0_504
PS_DDR_DM1_504
PS_DDR_DM2_504
PS_DDR_DM3_504
PS_DDR_DM4_504
PS_DDR_DM5_504
PS_DDR_DM6_504
PS_DDR_DM7_504
PS_DDR_DM8_504

XCZU15EG-1FFVB1156E

AG31 DQ32
AG30 DQ33
AG29 DQ34
AG28 DQ35
AJ30 DQ36
AK29 DQ37
AK30 DQ38
AJ29 DQ39
AE27 DQ40
AF28 DQ41
AF30 DQ42
AF31 DQ43
AD28 DQ44
AD27 DQ45
AD29 DQ46
AD30 DQ47
AH33 DQ48
AJ34 DQ49
AH34 DQ50
AH32 DQ51
AK34 DQ52
AK33 DQ53
AL32 DQ54
AL31 DQ55
AG33 DQ56
AG34 DQ57
AF32 DQ58
AF33 DQ59
AD31 DQ60
AD32 DQ61
AD34 DQ62
AD33 DQ63
AN31 CB0
AP31 CB1
AP32 CB2
AP33 CB3
AM31 CB4
AM33 CB5
AM34 CB6
AL33 CB7
AN17 DDR4-DM0
AM21 DDR4-DM1
AK19 DDR4-DM2
AH24 DDR4-DM3
AH31 DDR4-DM4
AE30 DDR4-DM5
AJ31 DDR4-DM6
AE34 DDR4-DM7
AN34 DDR4-DM8



Title:

TEB0911 - FPGA B504

A4

Number:

TEB0911
ZU15EGA

Rev.

04

Date:

18.09.2018

Copyright: Trenz Electronic GmbH

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Filename:

ZU_PSDDR.SchDoc

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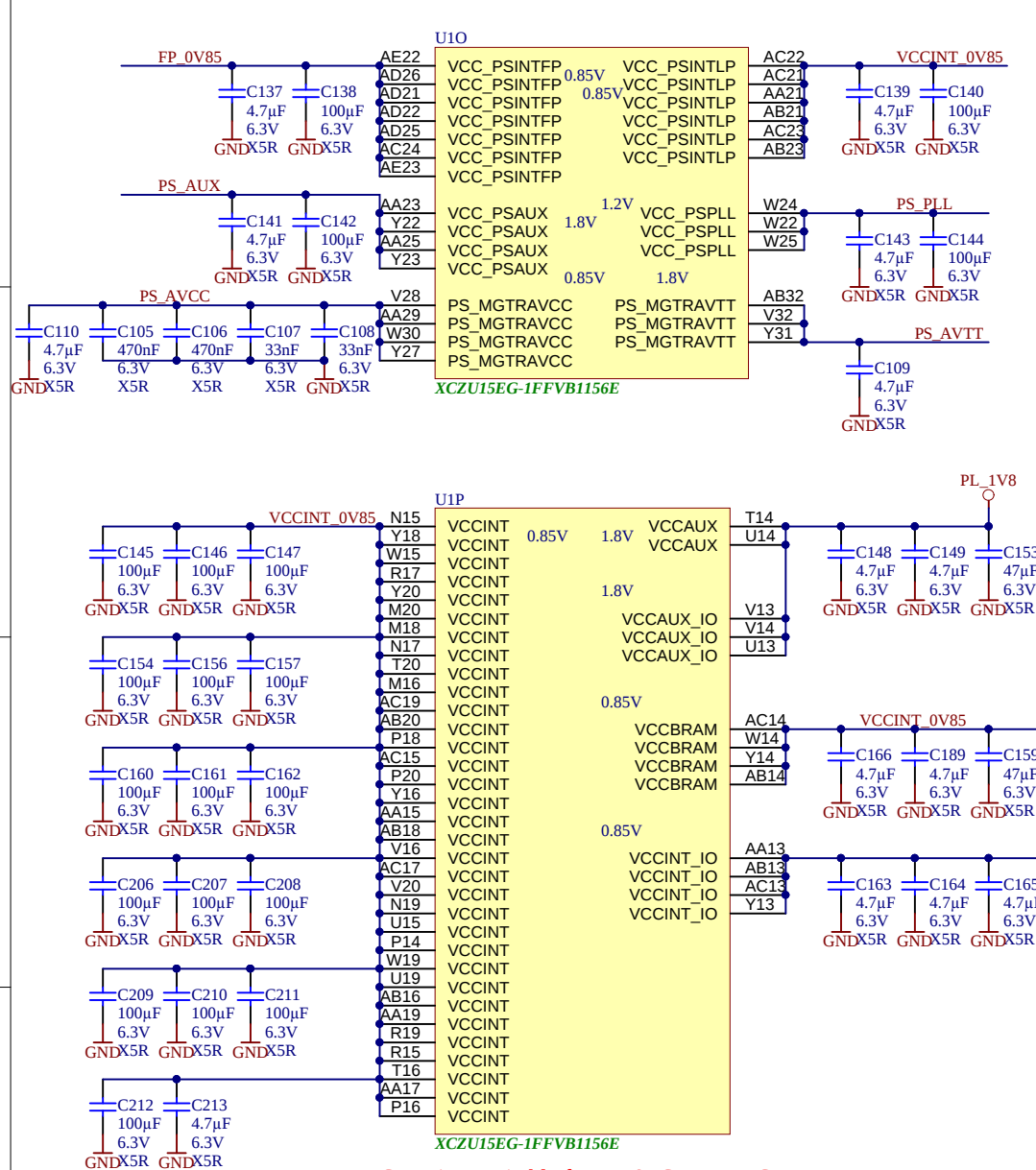
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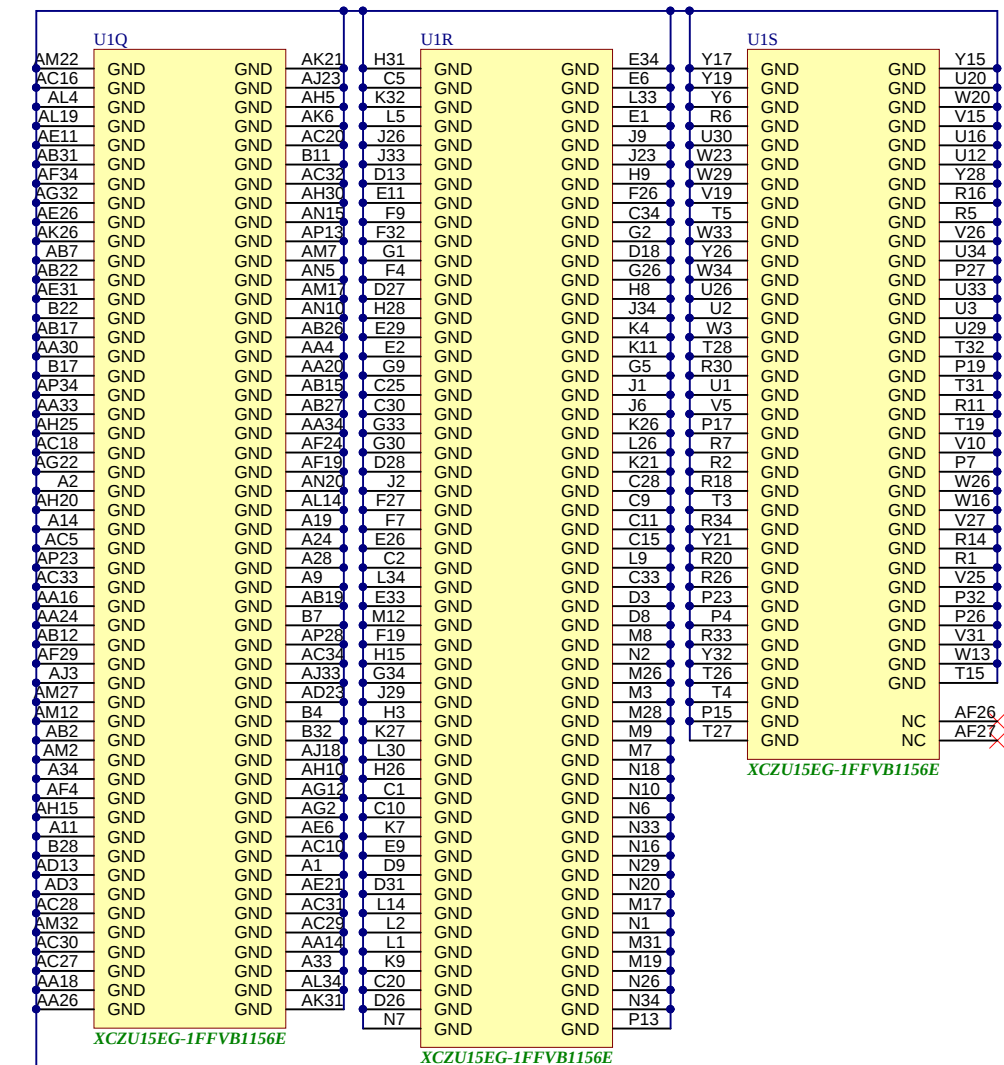
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Capacitors suitable for ZU9EG, ZU15EG



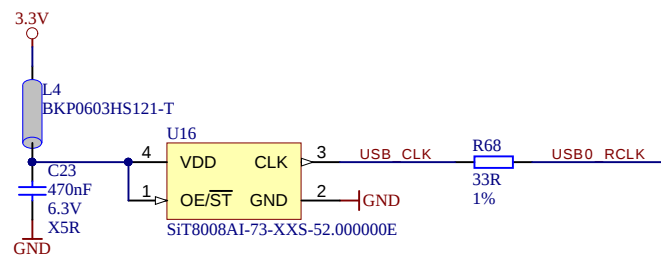
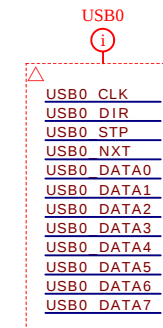
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A4	Number: TEB0911 ZU15EGA	Rev. 04
Date: 18.09.2018	Copyright: Trenz Electronic GmbH	
Page10 of 58		
Filename: ZU_PWR.SchDoc		

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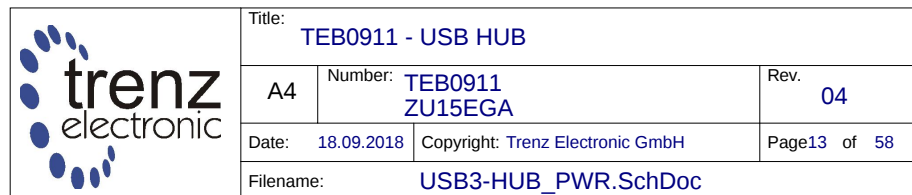
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Date: 18.09.2018	Copyright: Trenz Electronic GmbH		Page 11 of 58
Filename: USB-PHY.SchDoc			

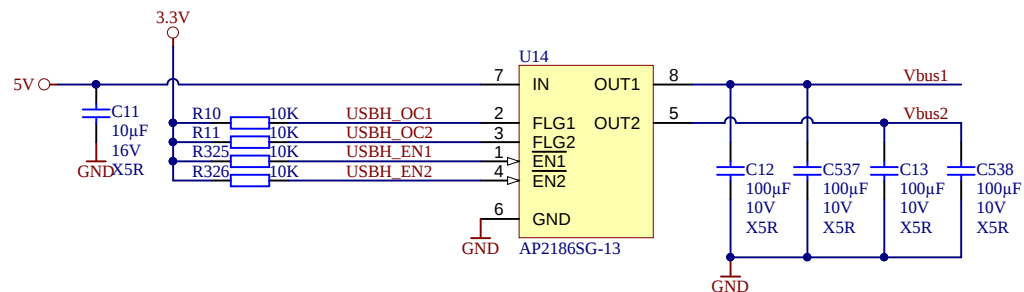
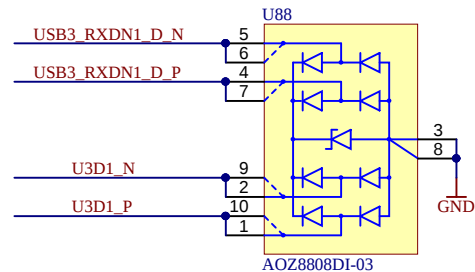
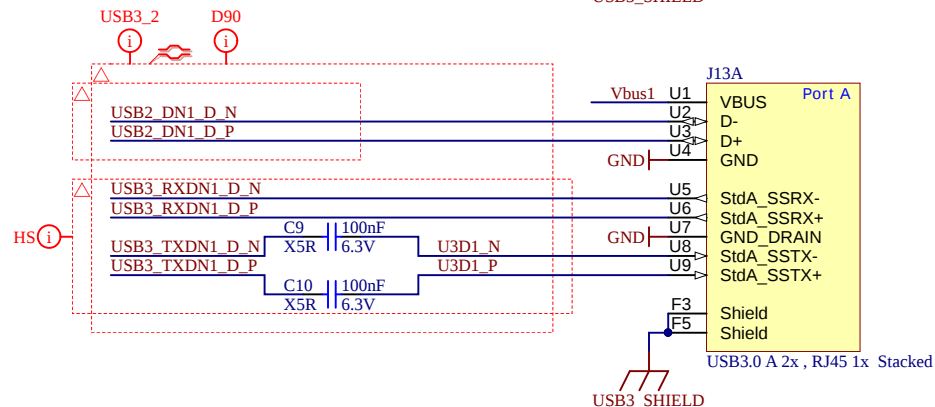
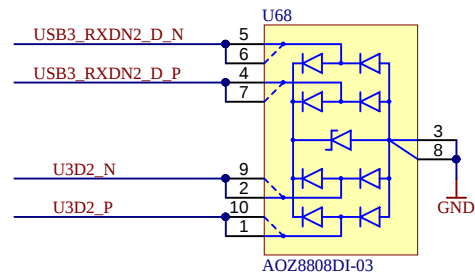
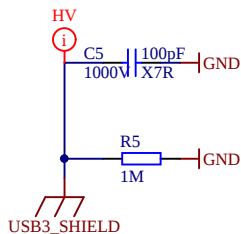
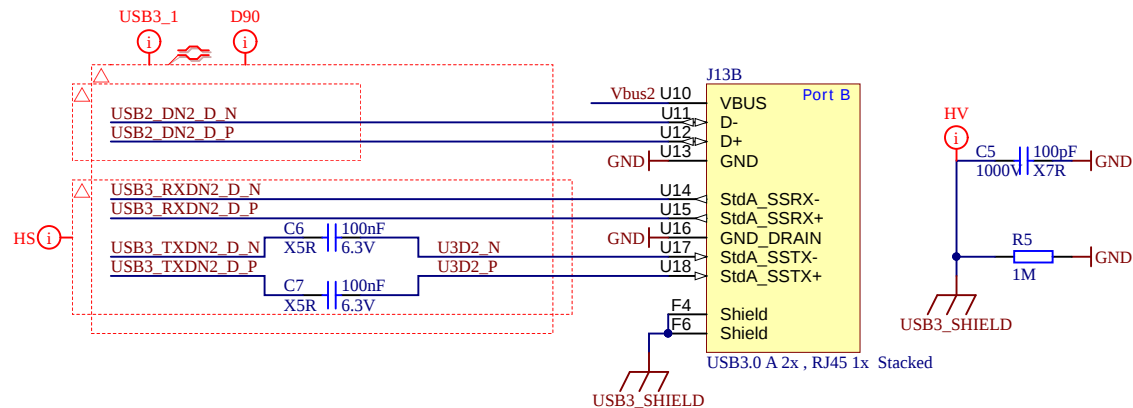


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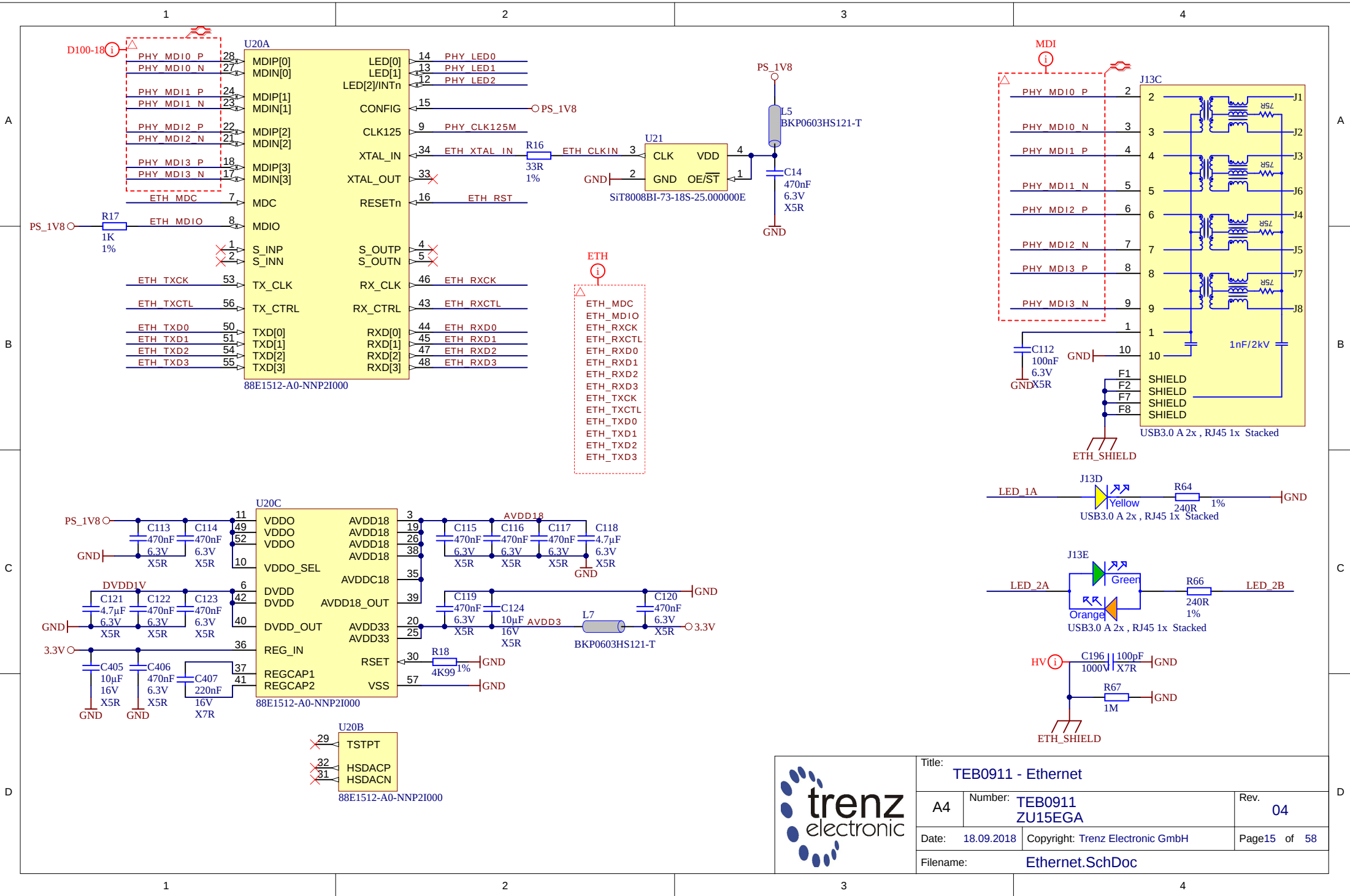
A4	Number: TEB0911 ZU15EGA	Rev. 04
Date: 18.09.2018	Copyright: Trenz Electronic GmbH	Page14 of 58
Filename: USB.SchDoc		

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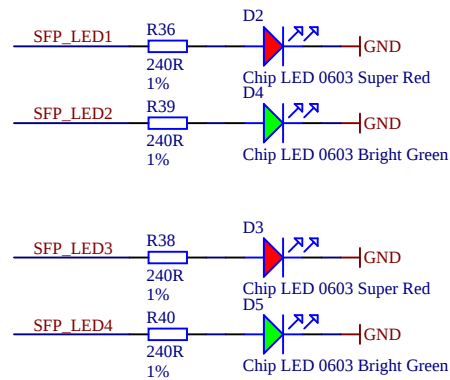
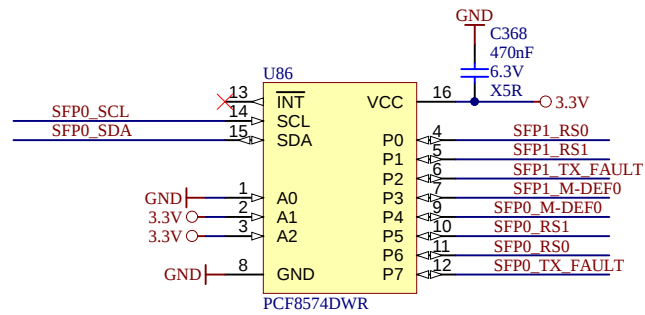
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Title: TEB0911 - Ethernet		
A4	Number: TEB0911 ZU15EGA	Rev. 04
Date: 18.09.2018	Copyright: Trenz Electronic GmbH	
Filename: Ethernet.SchDoc		Page15 of 58



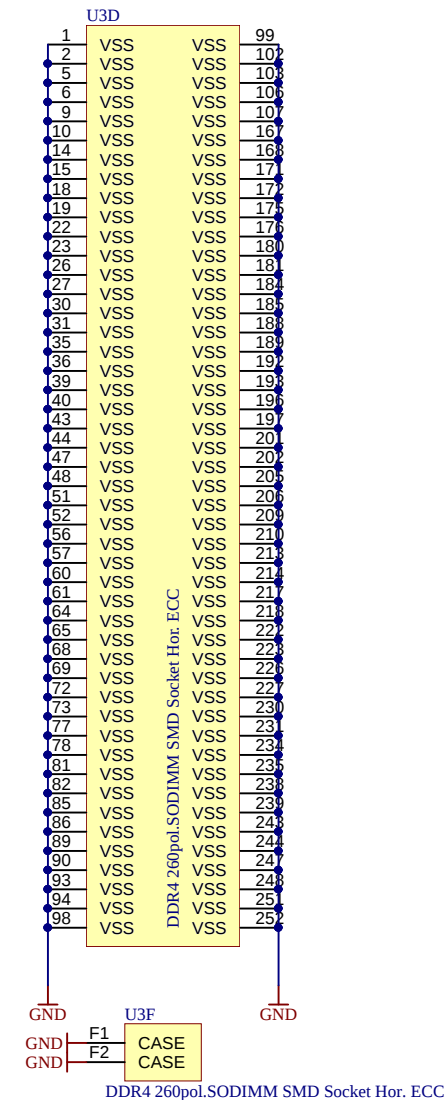
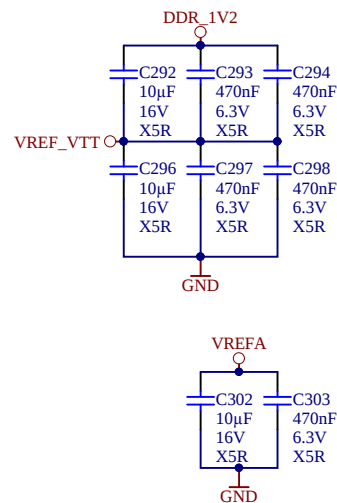
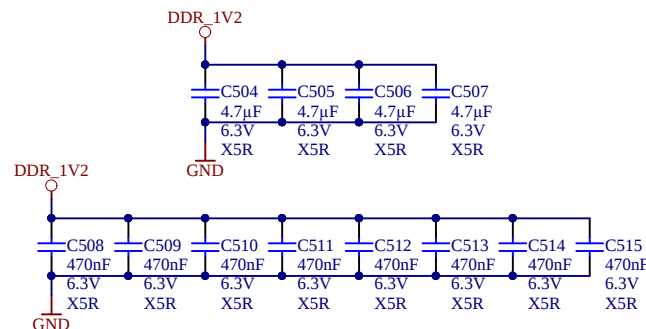
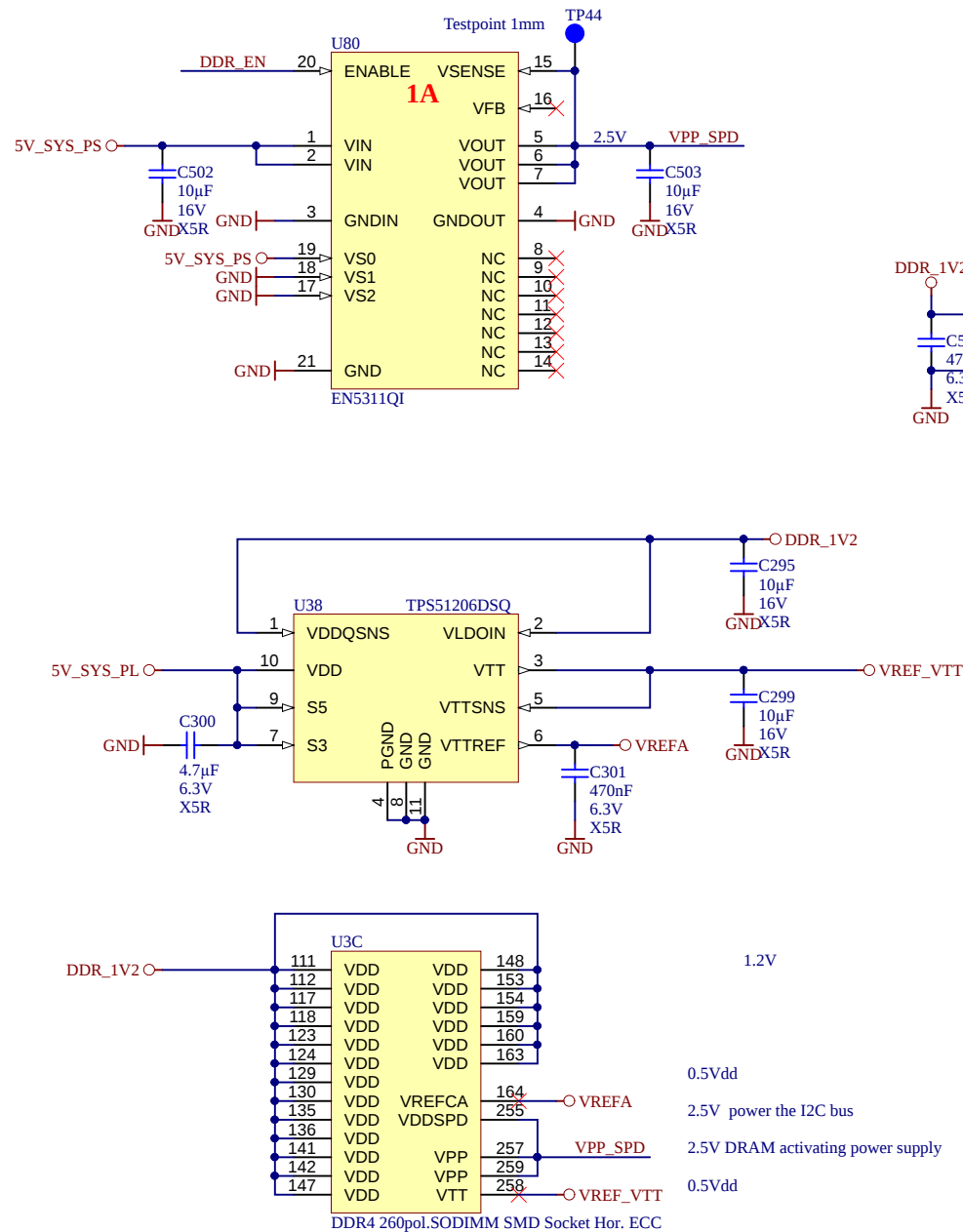
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	A4	Number: TEB0911 ZU15EGA	Rev. 04
	Date: 18.09.2018	Copyright: Trenz Electronic GmbH	Page 18 of 58
	Filename: SFP_CTRL.SchDoc		

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		Title: TEB0911 - DDR POWER	
		A4 Number: TEB0911 ZU15EGA	Rev. 04
Date: 18.09.2018		Copyright: Trenz Electronic GmbH	
Filename: DDR_PWR.SchDoc		Page19 of 58	

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U3A

DDR4-A0	144	A0	DQS0_T	13	DDR4-DQS7_P
DDR4-A1	133	A1	DQS0_C	11	DDR4-DQS7_N
DDR4-A2	132	A2			
DDR4-A3	131	A3	DQS1_T	34	DDR4-DQS6_P
DDR4-A4	128	A4	DQS1_C	32	DDR4-DQS6_N
DDR4-A5	126	A5			
DDR4-A6	127	A6	DQS2_T	55	DDR4-DQS5_P
DDR4-A7	122	A7	DQS2_C	53	DDR4-DQS5_N
DDR4-A8	125	A8			
DDR4-A9	121	A9	DQS3_T	76	DDR4-DQS4_P
DDR4-A10	146	A10/AP	DQS3_C	74	DDR4-DQS4_N
DDR4-A11	120	A11			
DDR4-A12	119	A12	DQS4_T	179	DDR4-DQS3_P
DDR4-A13	158	A13	DQS4_C	177	DDR4-DQS3_N
DDR4-A14	151	WE/A14			
DDR4-A15	156	CAS/A15	DQS5_T	200	DDR4-DQS2_P
DDR4-A16	152	RAS/A16	DQS5_C	198	DDR4-DQS2_N

DDR4-BA0	150	BA0	DQS6_T	221	DDR4-DQS1_P
DDR4-BA1	145	BA1	DQS6_C	219	DDR4-DQS1_N
DDR4-BG0	115	BG0	DQS7_T	242	DDR4-DQS0_P
DDR4-BG1	113	BG1	DQS7_C	240	DDR4-DQS0_N

DDR4-CKE0	109	CKE0	DQS8_T	97	DDR4-DQS8_P
DDR4-CKE1	110	CKE1/NC	DQS8_C	95	DDR4-DQS8_N

DDR4-CLK0_P	137	CK0_T	DM0/DBI0	12	DDR4-DM7
DDR4-CLK0_N	139	CK0_C	DM1/DBI1	33	DDR4-DM6
DDR4-CLK1_P	138	CK1_T/NF	DM2/DBI2	54	DDR4-DM5
DDR4-CLK1_N	140	CK1_C/NF	DM3/DBI3	75	DDR4-DM4
			DM4/DBI4	178	DDR4-DM3
			DM5/DBI5	199	DDR4-DM2
			DM6/DBI6	220	DDR4-DM1
			DM7/DBI7	241	DDR4-DM0
			DM8/DBI/NC	96	DDR4-DM8

DDR4-CS_N0	149	CS0	SA0	256	DDR4-SA0
DDR4-CS_N1	157	CS1/NC	SA1	260	DDR4-SA1
	162	C0/CS2/NC	SA2	166	DDR4-SA2
	165	C1/CS3/ NC			

DDR4-ODT0	155	ODT0	SCL	253	DDR4-SCL
DDR4-ODT1	161	ODT1/NC	SDA	254	DDR4-SDA
DDR4-RESET	108	RESET	ACT	114	DDR4-ACT
DDR4-PAR	143	PARITY			

DDR4 260pol.SODIMM SMD Socket Hor. ECC

U3B

DQ62	8	DQ0	DQ32	174	DQ31
DQ60	7	DQ1	DQ33	173	DQ28
DQ59	20	DQ2	DQ34	187	DQ27
DQ56	21	DQ3	DQ35	186	DQ25
DQ63	4	DQ4	DQ36	170	DQ26
DQ61	3	DQ5	DQ37	169	DQ30
DQ58	16	DQ6	DQ38	183	DQ29
DQ57	17	DQ7	DQ39	182	DQ24
		DQ8	DQ40	195	DQ20
DQ50	28	DQ9	DQ41	194	DQ16
DQ51	29	DQ10	DQ42	207	DQ23
DQ54	41	DQ11	DQ43	208	DQ22
DQ55	42	DQ12	DQ44	191	DQ18
DQ48	24	DQ13	DQ45	190	DQ17
DQ49	25	DQ14	DQ46	203	DQ21
DQ52	38	DQ15	DQ47	204	DQ19
DQ53	37	DQ16	DQ48	216	DQ11
DQ47	50	DQ17	DQ49	215	DQ15
DQ43	49	DQ18	DQ50	228	DQ8
DQ45	62	DQ19	DQ51	229	DQ13
DQ41	63	DQ20	DQ52	211	DQ12
DQ44	46	DQ21	DQ53	212	DQ14
DQ46	45	DQ22	DQ54	224	DQ10
DQ42	58	DQ23	DQ55	225	DQ9
DQ40	59	DQ24	DQ56	237	DQ1
		DQ25	DQ57	236	DQ2
DQ38	70	DQ26	DQ58	249	DQ7
DQ36	71	DQ27	DQ59	250	DQ5
DQ34	83	DQ28	DQ60	232	DQ0
DQ35	84	DQ29	DQ61	233	DQ4
DQ33	66	DQ30	DQ62	245	DQ6
DQ32	67	DQ31	DQ63	246	DQ3
DQ39	79				
DQ37	80				

DDR4 260pol.SODIMM SMD Socket Hor. ECC

U3E

CB6	92	CB0/NC
CB3	91	CB1/NC
CB4	101	CB2/NC
CB0	105	CB3/NC
CB5	88	CB4/NC
CB7	87	CB5/NC
CB1	100	CB6/NC
CB2	104	CB7/NC

DDR4 260pol.SODIMM SMD Socket Hor. ECC

D80

DDR4-DQS7_P
DDR4-DQS7_N
DDR4-DQS6_P
DDR4-DQS6_N
DDR4-DQS5_P
DDR4-DQS5_N
DDR4-DQS4_P
DDR4-DQS4_N
DDR4-DQS3_P
DDR4-DQS3_N
DDR4-DQS2_P
DDR4-DQS2_N
DDR4-DQS1_P
DDR4-DQS1_N
DDR4-DQS0_P
DDR4-DQS0_N
DDR4-DQS8_P
DDR4-DQS8_N
DDR4-CLK0_P
DDR4-CLK0_N
DDR4-CLK1_P
DDR4-CLK1_N

DO[0..63]
CB[0..7]
DDR4-DM[0..8]
DDR4-ACT
DDR4-ALERT
DDR4-AI[0..16]
DDR4-BA0
DDR4-BA1
DDR4-BG0
DDR4-BG1
DDR4-CKE0
DDR4-CKE1
DDR4-CS_N0
DDR4-CS_N1
DDR4-ODT0
DDR4-ODT1
DDR4-PAR

S40



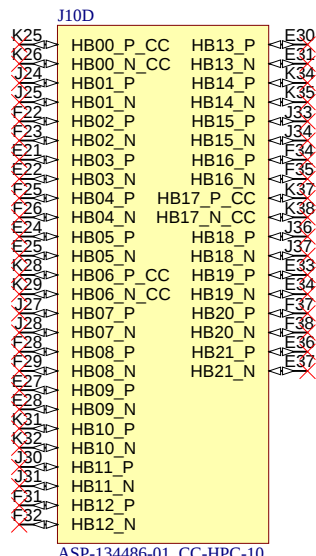
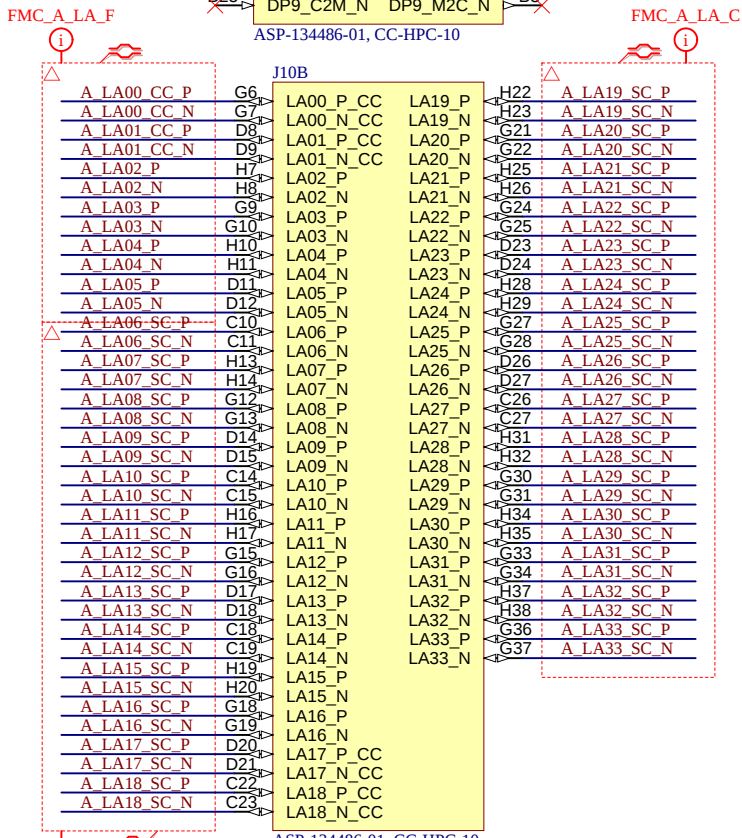
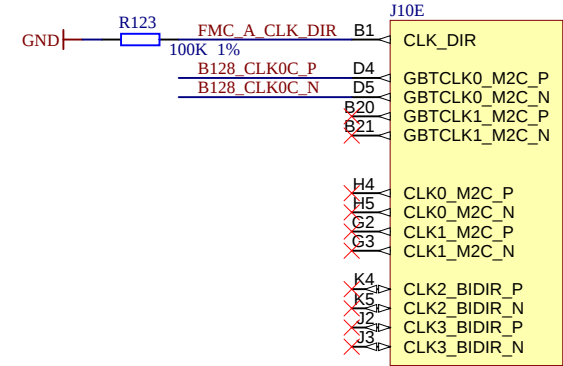
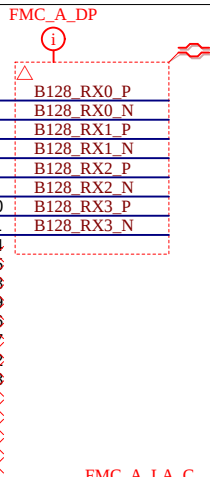
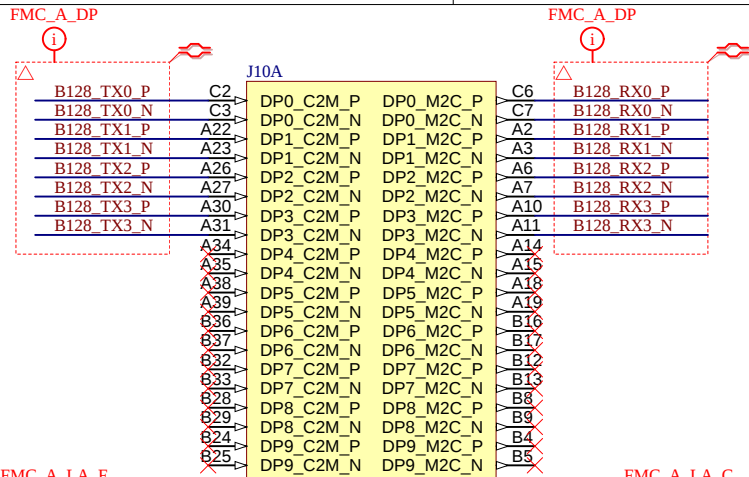
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A4	Number: TEB0911 ZU15EGA	Rev. 04	
Date: 18.09.2018	Copyright: Trenz Electronic GmbH		Page20 of 58
Filename: DDR_SODIMM.SchDoc			

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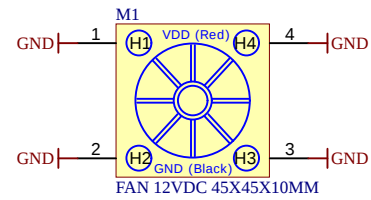
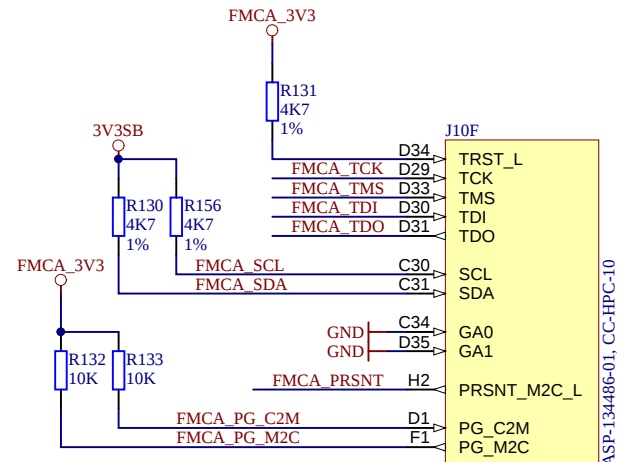
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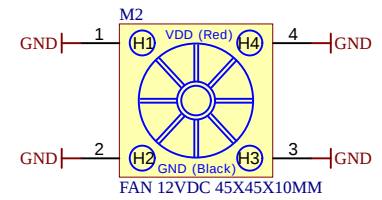
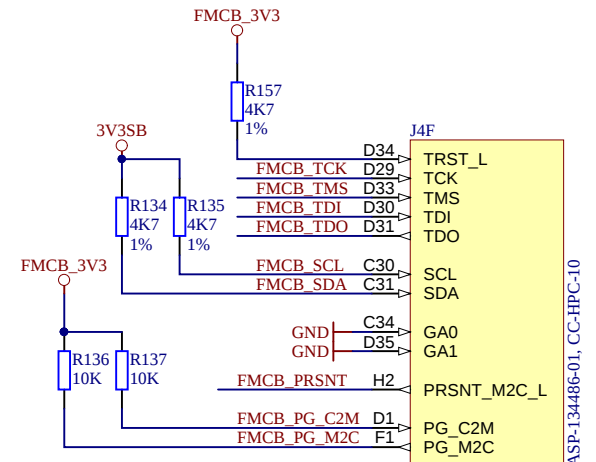
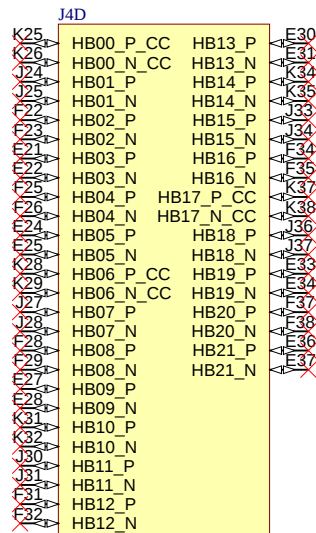
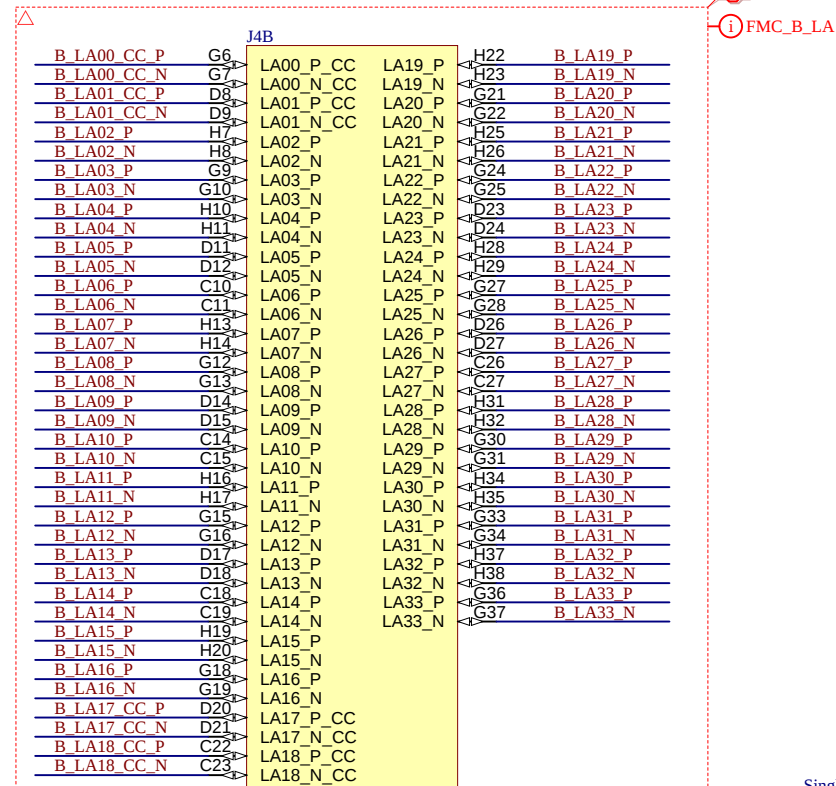
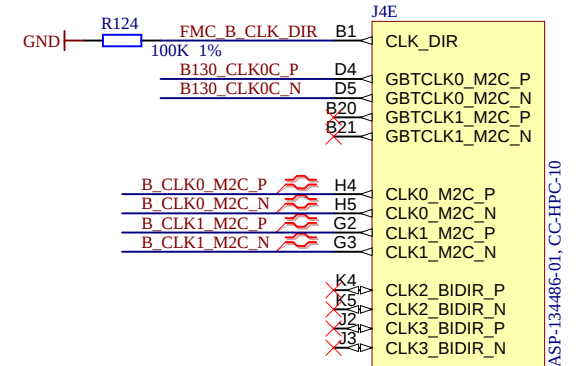
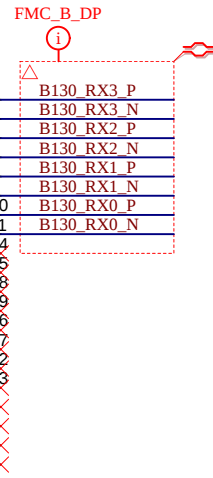
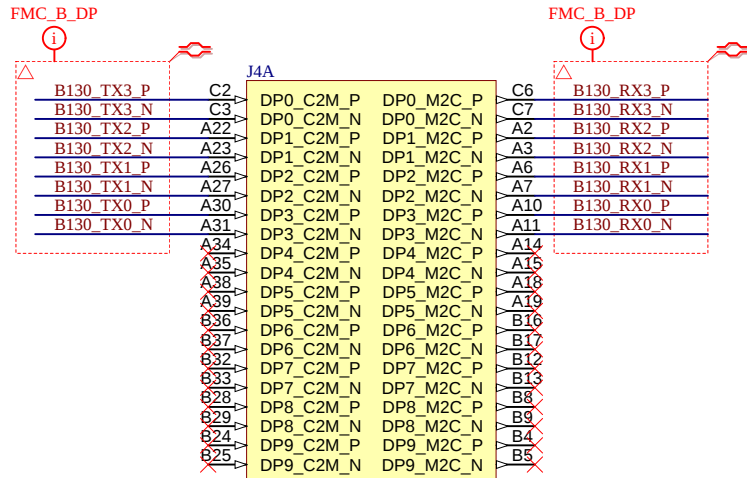
U10
SNAP

Single FMC Commercial Baseboard Snap



Title: TEB0911 - FMC A		
A4	Number: TEB0911 ZU15EGA	Rev. 04
Date: 18.09.2018	Copyright: Trenz Electronic GmbH	
Filename: FMC_A.SchDoc		Page21 of 58

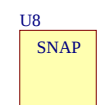
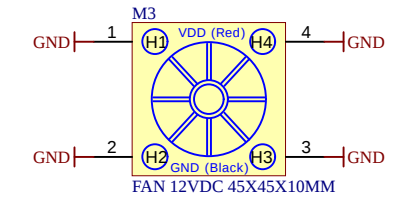
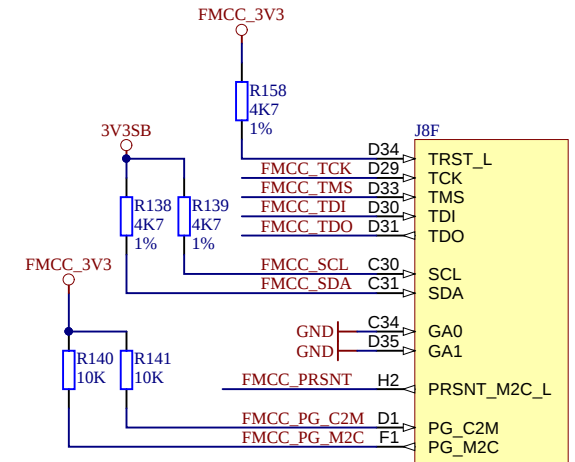
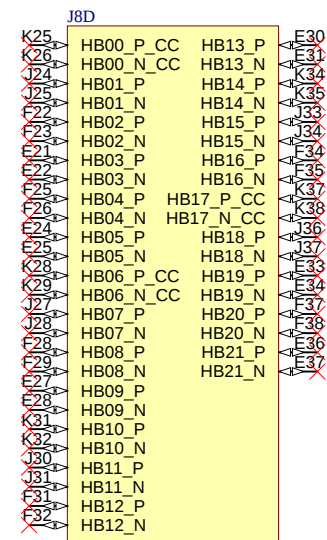
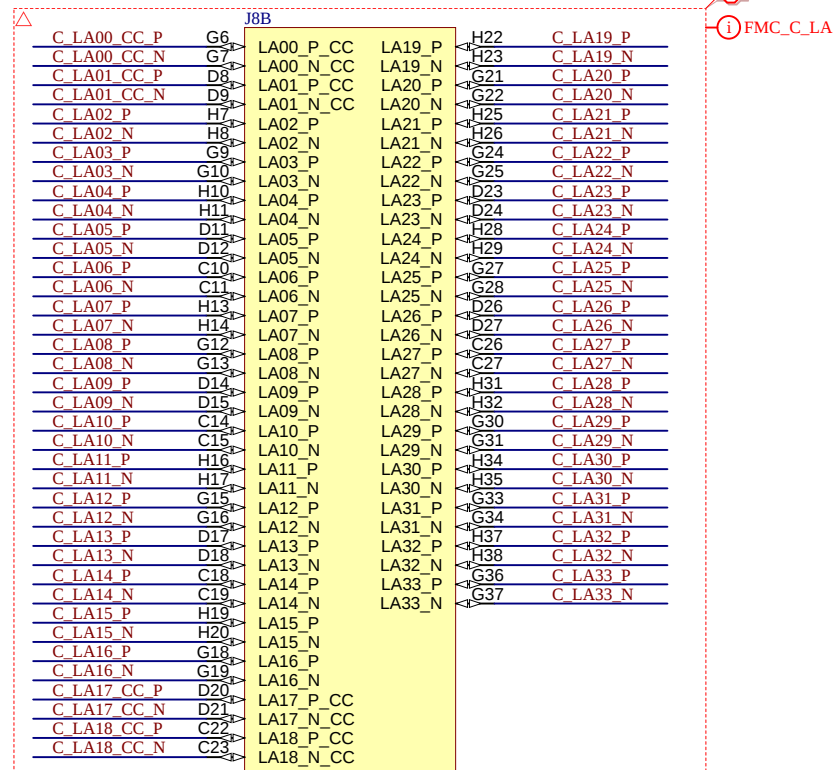
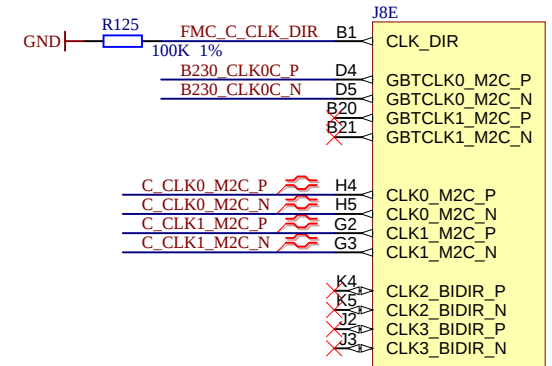
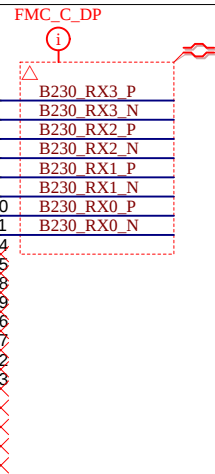
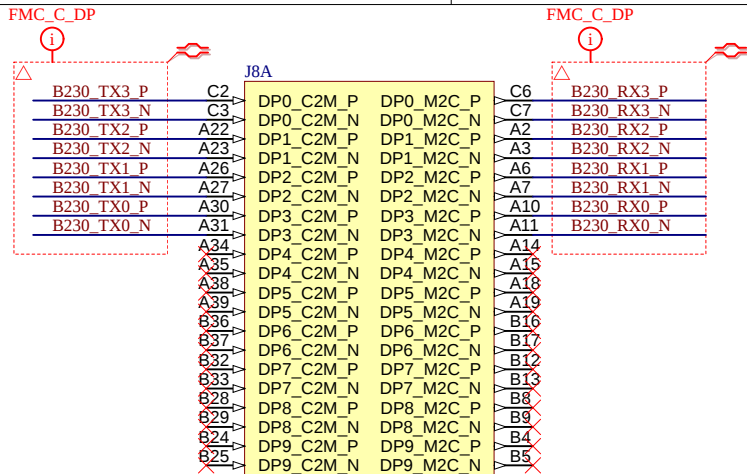




Single FMC Commercial Baseboard Snap



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Single FMC Commercial Baseboard Snap



Title: TEB0911 - FMC C		
A4	Number: TEB0911 ZU15EGA	Rev. 04
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FMC_D_DP

FMC_D_DP

J7A

B229_TX3_P	C2	DP0_C2M_P	DP0_M2C_P	C6	B229_RX3_P
B229_TX3_N	C3	DP0_C2M_N	DP0_M2C_N	C7	B229_RX3_N
B229_TX2_P	A22	DP1_C2M_P	DP1_M2C_P	A2	B229_RX2_P
B229_TX2_N	A23	DP1_C2M_N	DP1_M2C_N	A3	B229_RX2_N
B229_TX1_P	A26	DP2_C2M_P	DP2_M2C_P	A6	B229_RX1_P
B229_TX1_N	A27	DP2_C2M_N	DP2_M2C_N	A7	B229_RX1_N
B229_TX0_P	A30	DP3_C2M_P	DP3_M2C_P	A10	B229_RX0_P
B229_TX0_N	A31	DP3_C2M_N	DP3_M2C_N	A11	B229_RX0_N
	A34	DP4_C2M_P	DP4_M2C_P	A14	
	A35	DP4_C2M_N	DP4_M2C_N	A15	
	A38	DP5_C2M_P	DP5_M2C_P	A18	
	A39	DP5_C2M_N	DP5_M2C_N	A19	
	B36	DP6_C2M_P	DP6_M2C_P	B16	
	B37	DP6_C2M_N	DP6_M2C_N	B17	
	B32	DP7_C2M_P	DP7_M2C_P	B12	
	B33	DP7_C2M_N	DP7_M2C_N	B13	
	B28	DP8_C2M_P	DP8_M2C_P	B8	
	B29	DP8_C2M_N	DP8_M2C_N	B9	
	B24	DP9_C2M_P	DP9_M2C_P	B4	
	B25	DP9_C2M_N	DP9_M2C_N	B5	

ASP-134486-01, CC-HPC-10

J7C

HA00_P_CC	HA13_P	E12
HA00_N_CC	HA13_N	E13
HA01_P_CC	HA14_P	E15
HA01_N_CC	HA14_N	E16
HA02_P	HA15_P	E17
HA02_N	HA15_N	E18
HA03_P	HA16_P	E19
HA03_N	HA16_N	E20
HA04_P	HA17_P_CC	E21
HA04_N	HA17_N_CC	E22
HA05_P	HA18_P	E23
HA05_N	HA18_N	E24
HA06_P	HA19_P	E25
HA06_N	HA19_N	E26
HA07_P	HA20_P	E27
HA07_N	HA20_N	E28
HA08_P	HA21_P	E29
HA08_N	HA21_N	E30
HA09_P	HA22_P	E31
HA09_N	HA22_N	E32
HA10_P	HA23_P	E33
HA10_N	HA23_N	E34
HA11_P		E35
HA11_N		E36
HA12_P		E37
HA12_N		E38

ASP-134486-01, CC-HPC-10

J7D

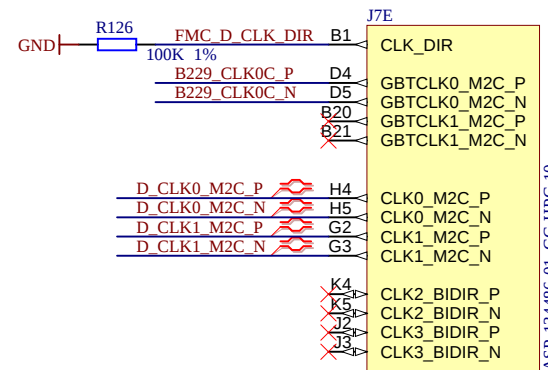
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HB00_N_CC	HB13_N	E31
HB01_P	HB14_P	E32
HB01_N	HB14_N	E33
HB02_P	HB15_P	E34
HB02_N	HB15_N	E35
HB03_P	HB16_P	E36
HB03_N	HB16_N	E37
HB04_P	HB17_P_CC	E38
HB04_N	HB17_N_CC	E39
HB05_P	HB18_P	E40
HB05_N	HB18_N	E41
HB06_P_CC	HB19_P	E42
HB06_N_CC	HB19_N	E43
HB07_P	HB20_P	E44
HB07_N	HB20_N	E45
HB08_P	HB21_P	E46
HB08_N	HB21_N	E47
HB09_P		E48
HB09_N		E49
HB10_P		E50
HB10_N		E51
HB11_P		E52
HB11_N		E53
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HB12_N		E55

ASP-134486-01, CC-HPC-10

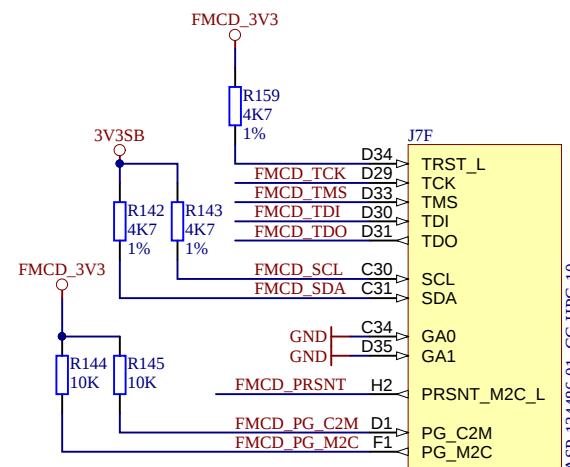
U6

SNAP

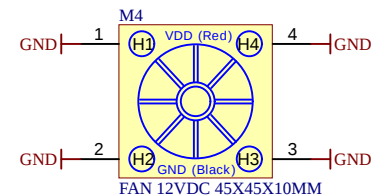
Single FMC Commercial Baseboard Snap



ASP-134486-01, CC-HPC-10



ASP-134486-01, CC-HPC-10



FAN 12VDC 45X45X10MM

Title: TEB0911 - FMC D			
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FMC_E_DP

FMC_E_DP

J6A

B228_TX3_P	C2	DP0_C2M_P	DP0_M2C_P	C6	B228_RX3_P
B228_TX3_N	C3	DP0_C2M_N	DP0_M2C_N	C7	B228_RX3_N
B228_TX2_P	A22	DP1_C2M_P	DP1_M2C_P	A2	B228_RX2_P
B228_TX2_N	A23	DP1_C2M_N	DP1_M2C_N	A3	B228_RX2_N
B228_TX1_P	A26	DP2_C2M_P	DP2_M2C_P	A6	B228_RX1_P
B228_TX1_N	A27	DP2_C2M_N	DP2_M2C_N	A7	B228_RX1_N
B228_TX0_P	A30	DP3_C2M_P	DP3_M2C_P	A10	B228_RX0_P
B228_TX0_N	A31	DP3_C2M_N	DP3_M2C_N	A11	B228_RX0_N
	A34	DP4_C2M_P	DP4_M2C_P	A14	
	A35	DP4_C2M_N	DP4_M2C_N	A15	
	A38	DP5_C2M_P	DP5_M2C_P	A18	
	A39	DP5_C2M_N	DP5_M2C_N	A19	
	B36	DP6_C2M_P	DP6_M2C_P	B16	
	B37	DP6_C2M_N	DP6_M2C_N	B17	
	B32	DP7_C2M_P	DP7_M2C_P	B12	
	B33	DP7_C2M_N	DP7_M2C_N	B13	
	B28	DP8_C2M_P	DP8_M2C_P	B8	
	B29	DP8_C2M_N	DP8_M2C_N	B9	
	B24	DP9_C2M_P	DP9_M2C_P	B4	
	B25	DP9_C2M_N	DP9_M2C_N	B5	

ASP-134486-01, CC-HPC-10

J6B

E_LA00_CC_P	G6	LA00_P_CC	LA19_P	H22	E_LA19_P
E_LA00_CC_N	G7	LA00_N_CC	LA19_N	H23	E_LA19_N
E_LA01_CC_P	D8	LA01_P_CC	LA20_P	G21	E_LA20_P
E_LA01_CC_N	D9	LA01_N_CC	LA20_N	G22	E_LA20_N
E_LA02_P	H7	LA02_P	LA21_P	H25	E_LA21_P
E_LA02_N	H8	LA02_N	LA21_N	H26	E_LA21_N
E_LA03_P	G9	LA03_P	LA22_P	G24	E_LA22_P
E_LA03_N	G10	LA03_N	LA22_N	G25	E_LA22_N
E_LA04_P	H10	LA04_P	LA23_P	D23	E_LA23_P
E_LA04_N	H11	LA04_N	LA23_N	D24	E_LA23_N
E_LA05_P	D11	LA05_P	LA24_P	H28	E_LA24_P
E_LA05_N	D12	LA05_N	LA24_N	H29	E_LA24_N
E_LA06_P	C10	LA06_P	LA25_P	G27	E_LA25_P
E_LA06_N	C11	LA06_N	LA25_N	G28	E_LA25_N
E_LA07_P	H13	LA07_P	LA26_P	D26	E_LA26_P
E_LA07_N	H14	LA07_N	LA26_N	D27	E_LA26_N
E_LA08_P	G12	LA08_P	LA27_P	C26	E_LA27_P
E_LA08_N	G13	LA08_N	LA27_N	C27	E_LA27_N
E_LA09_P	D14	LA09_P	LA28_P	H31	E_LA28_P
E_LA09_N	D15	LA09_N	LA28_N	H32	E_LA28_N
E_LA10_P	C14	LA10_P	LA29_P	G30	E_LA29_P
E_LA10_N	C15	LA10_N	LA29_N	G31	E_LA29_N
E_LA11_P	H16	LA11_P	LA30_P	H34	E_LA30_P
E_LA11_N	H17	LA11_N	LA30_N	H35	E_LA30_N
E_LA12_P	G15	LA12_P	LA31_P	G33	E_LA31_P
E_LA12_N	G16	LA12_N	LA31_N	G34	E_LA31_N
E_LA13_P	D17	LA13_P	LA32_P	H37	E_LA32_P
E_LA13_N	D18	LA13_N	LA32_N	H38	E_LA32_N
E_LA14_P	C18	LA14_P	LA33_P	G36	E_LA33_P
E_LA14_N	C19	LA14_N	LA33_N	G37	E_LA33_N
E_LA15_P	H19	LA15_P			
E_LA15_N	H20	LA15_N			
E_LA16_P	G18	LA16_P			
E_LA16_N	G19	LA16_N			
E_LA17_CC_P	D20	LA17_P_CC			
E_LA17_CC_N	D21	LA17_N_CC			
E_LA18_CC_P	C22	LA18_P_CC			
E_LA18_CC_N	C23	LA18_N_CC			

ASP-134486-01, CC-HPC-10

J6C

F4	HA00_P_CC	HA13_P	F12
F5	HA00_N_CC	HA13_N	F13
E2	HA01_P_CC	HA14_P	F15
E3	HA01_N_CC	HA14_N	F16
K7	HA02_P	HA15_P	F17
K8	HA02_N	HA15_N	F18
J6	HA03_P	HA16_P	F19
J7	HA03_N	HA16_N	F16
F7	HA04_P	HA17_P_CC	K16
F8	HA04_N	HA17_N_CC	K17
E6	HA05_P	HA18_P	J18
E7	HA05_N	HA18_N	J19
K10	HA06_P	HA19_P	F19
K11	HA06_N	HA19_N	F18
J9	HA07_P	HA20_P	F19
J10	HA07_N	HA20_N	F19
F10	HA08_P	HA21_P	F20
F11	HA08_N	HA21_N	F20
E9	HA09_P	HA22_P	J21
F10	HA09_N	HA22_N	J22
K13	HA10_P	HA23_P	F22
K14	HA10_N	HA23_N	F23
J12	HA11_P		F23
J13	HA11_N		F23
F13	HA12_P		F23
F14	HA12_N		F23

ASP-134486-01, CC-HPC-10

J6D

K25	HB00_P_CC	HB13_P	E30
K26	HB00_N_CC	HB13_N	E31
J24	HB01_P	HB14_P	E34
J25	HB01_N	HB14_N	E35
F23	HB02_P	HB15_P	E33
F24	HB02_N	HB15_N	E34
E21	HB03_P	HB16_P	E34
E22	HB03_N	HB16_N	E35
F25	HB04_P	HB17_P_CC	E38
F26	HB04_N	HB17_N_CC	E39
E24	HB05_P	HB18_P	E36
E25	HB05_N	HB18_N	E37
F28	HB06_P_CC	HB19_P	E33
F29	HB06_N_CC	HB19_N	E34
J27	HB07_P	HB20_P	E38
J28	HB07_N	HB20_N	E39
E28	HB08_P	HB21_P	E36
E29	HB08_N	HB21_N	E37
F30	HB10_P		E37
J31	HB11_P		E37
F31	HB12_P		E37
F32	HB12_N		E37

ASP-134486-01, CC-HPC-10

U7

SNAP

Single FMC Commercial Baseboard Snap



Title:

TEB0911 - FMC E

A4

Number:

TEB0911
ZU15EGA

Rev.

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Date:

18.09.2018

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Filename:

FMC_E.SchDoc

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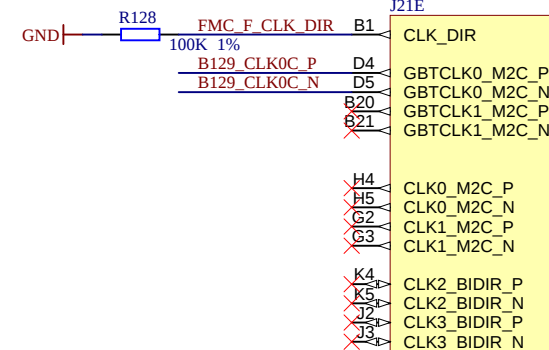
FMC_F_DP

FMC_F_DP

J21A

J21C

J21E



ASP-134486-01, CC-HPC-10

FMC_F_LA_F

FMC_F_LA_C

ASP-134486-01, CC-HPC-10

J21B

ASP-134486-01, CC-HPC-10

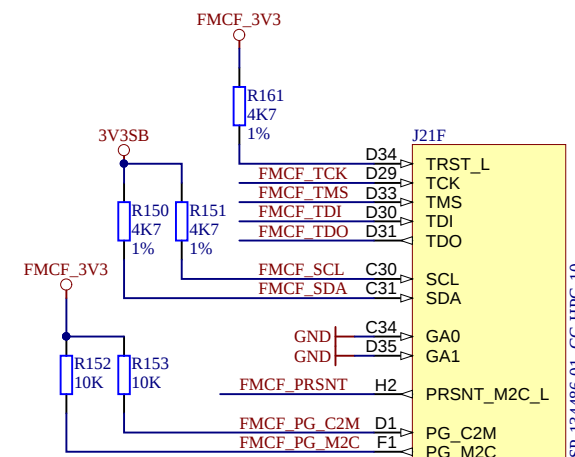
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ASP-134486-01, CC-HPC-10

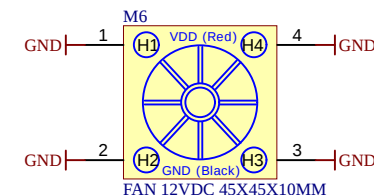
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SNAP

Single FMC Commercial Baseboard Snap



ASP-134486-01, CC-HPC-10



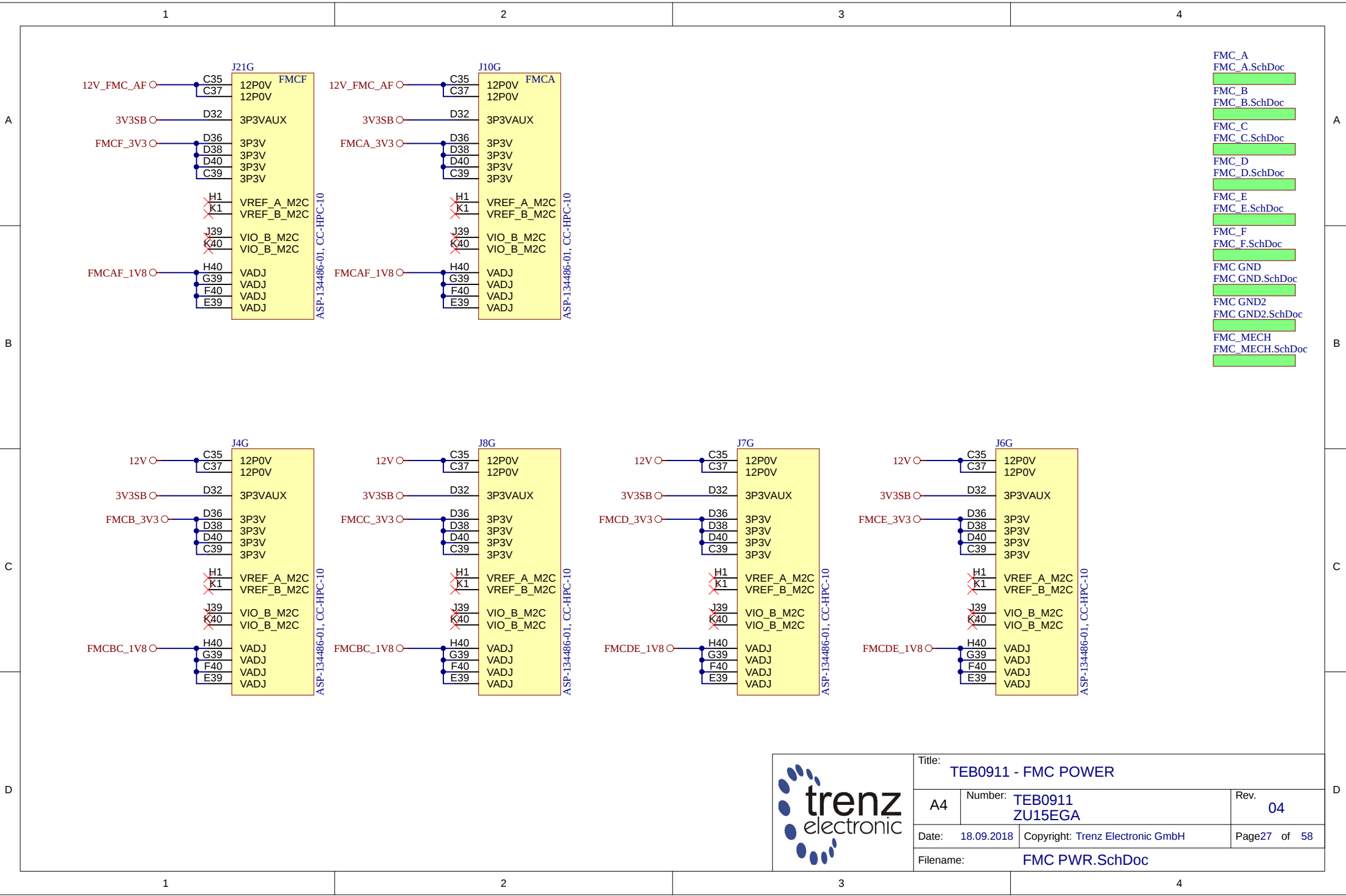
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	A4	Number: TEB0911 ZU15EGA	Rev. 04
	Date: 18.09.2018	Copyright: Trenz Electronic GmbH	Page26 of 58
	Filename: FMC F.SchDoc		

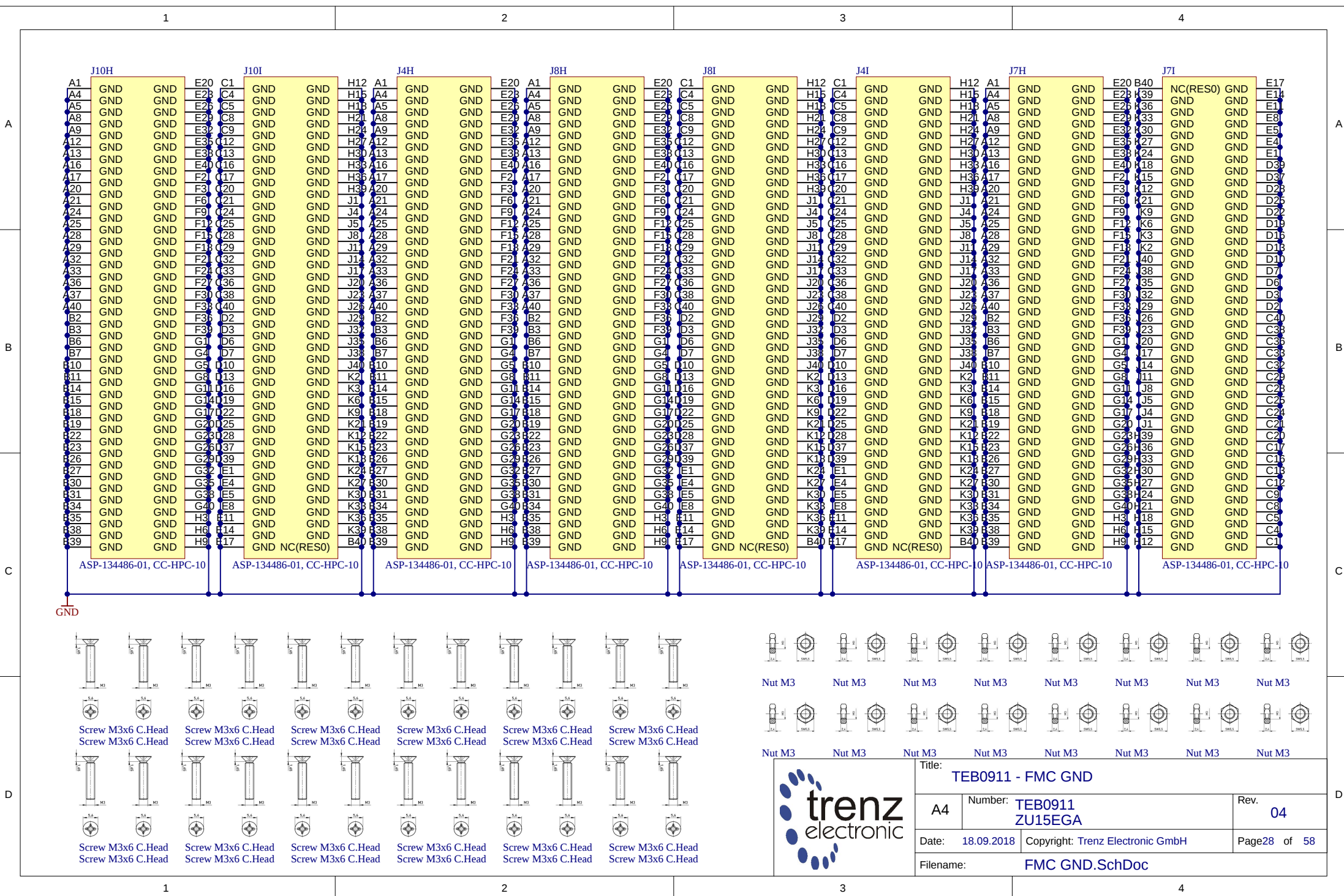
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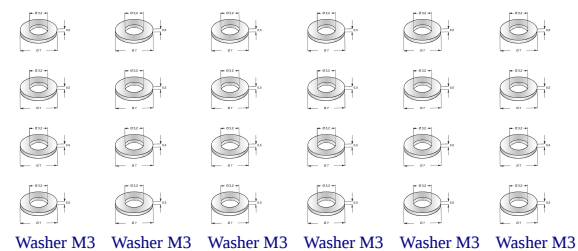
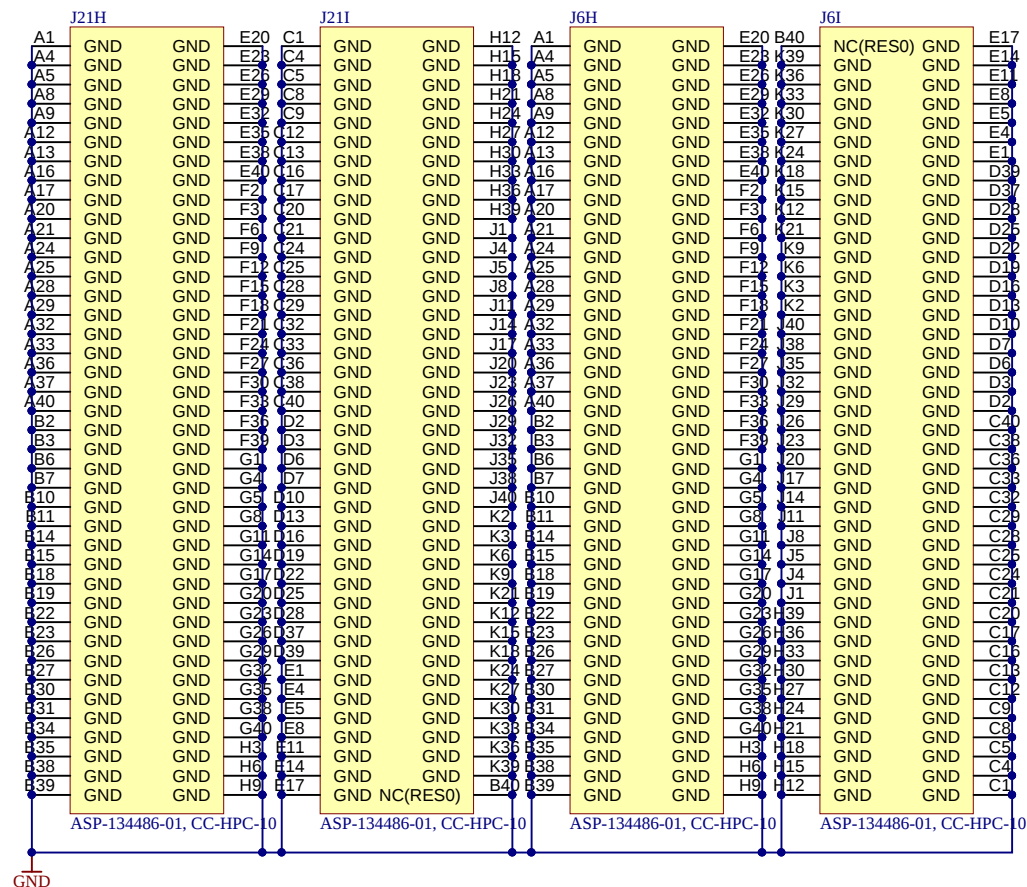
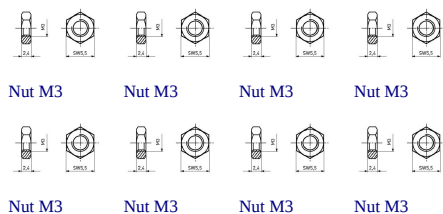
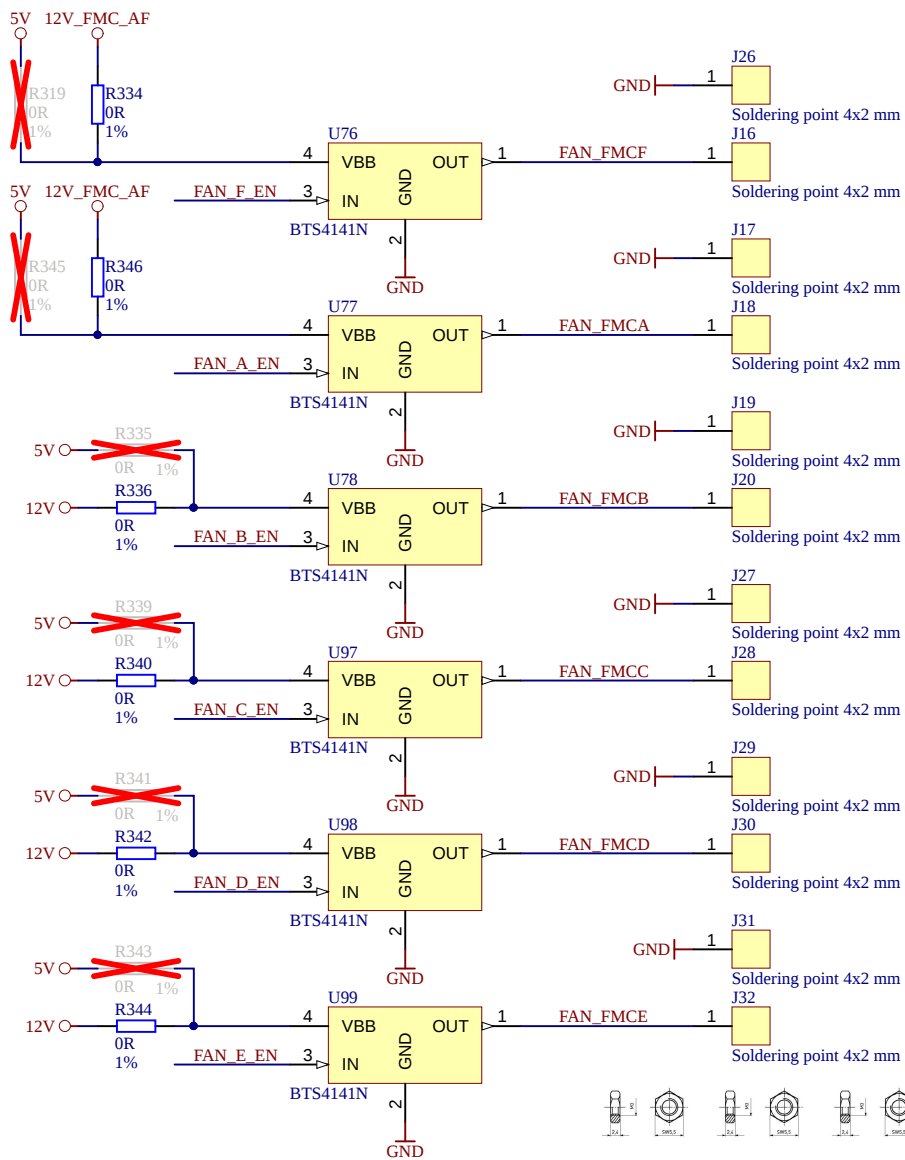
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Title: TEB0911 - FMC GND FAN		
A4	Number: TEB0911 ZU15EGA	Rev. 04
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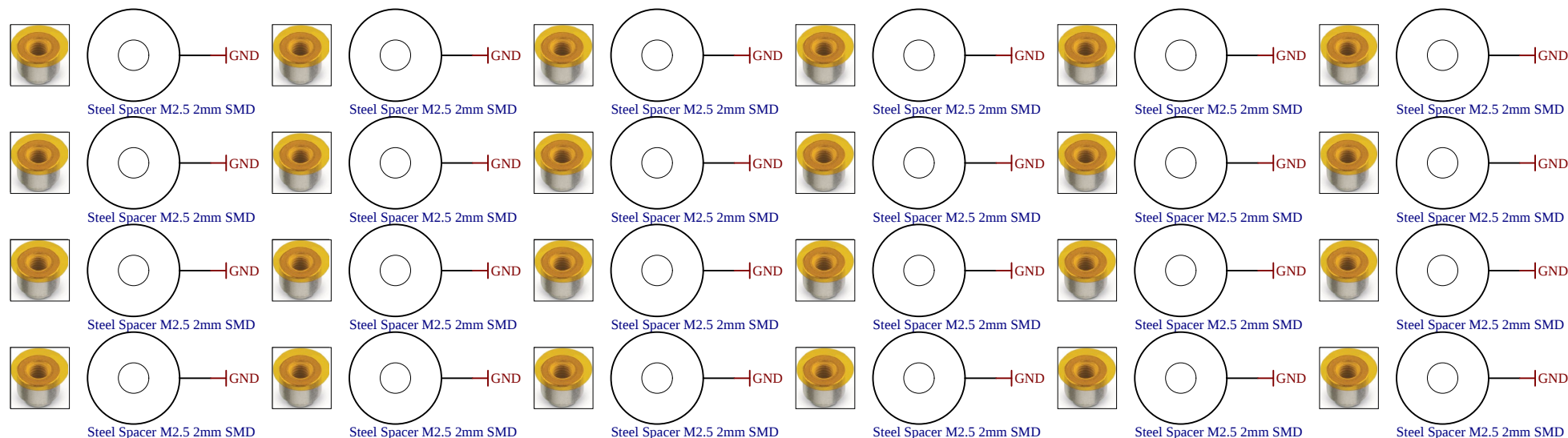
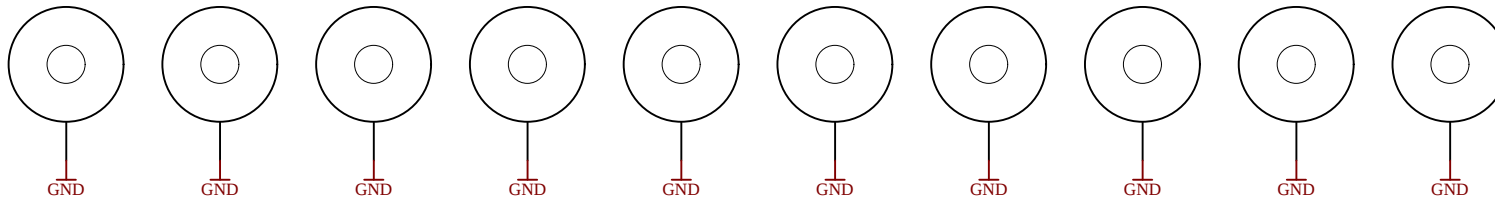
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Mount.Hole 3.2mm Mount.Hole 3.2mm Mount.Hole 3.2mm Mount.Hole 3.2mm Mount.Hole 3.2mm Mount.Hole 3.2mm Mount.Hole 3.2mm Mount.Hole 3.2mm Mount.Hole 3.2mm Mount.Hole 3.2mm



	Title: TEB0911 - FMC MECH		
	A4	Number: TEB0911 ZU15EGA	Rev. 04
	Date: 18.09.2018	Copyright: Trenz Electronic GmbH	Page 30 of 58
	Filename: FMC_MECH.SchDoc		

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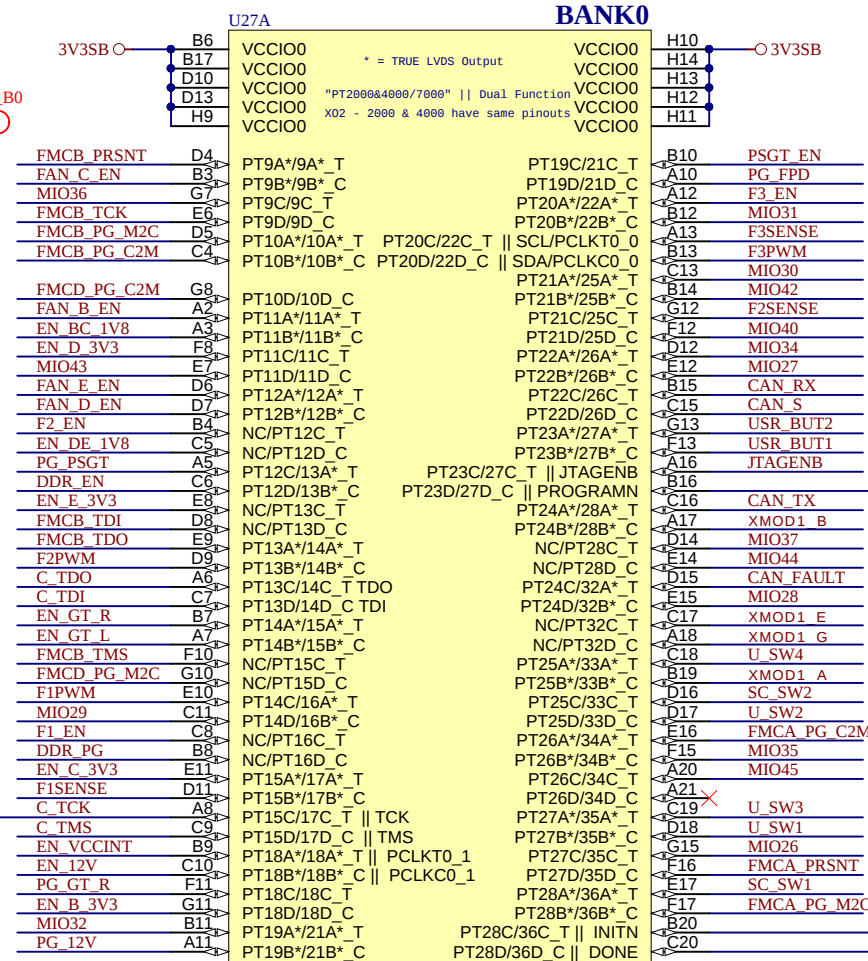
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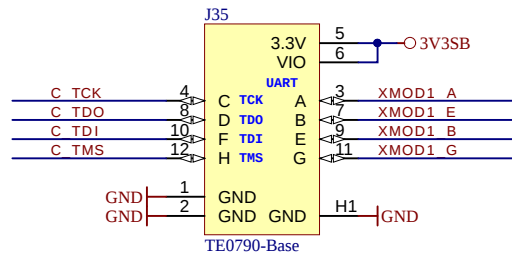
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LCMX02-7000HC-4FG484C



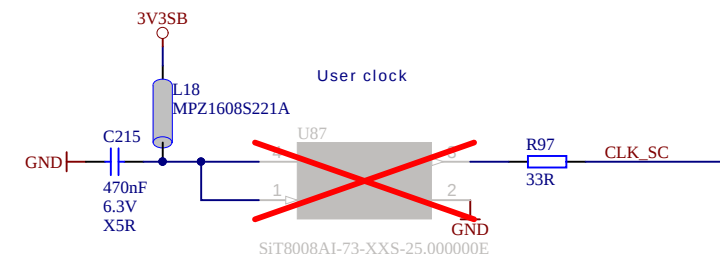
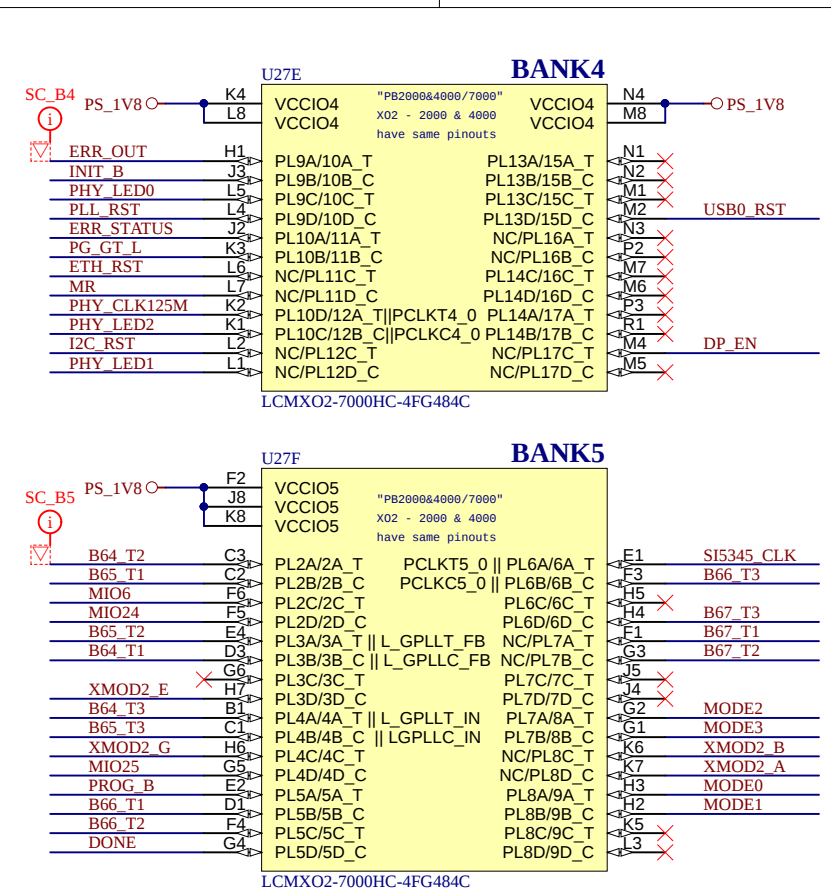
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A4	Number: TEB0911 ZU15EGA	Rev. 04
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Filename: SC.schdoc		

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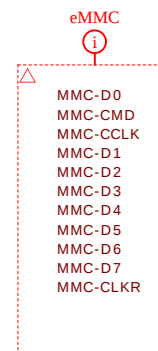
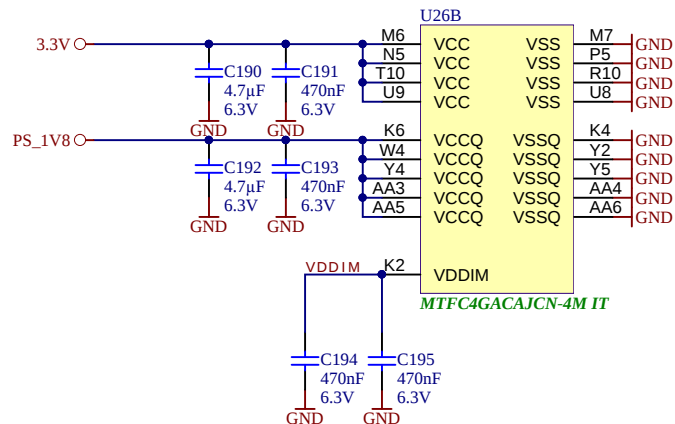
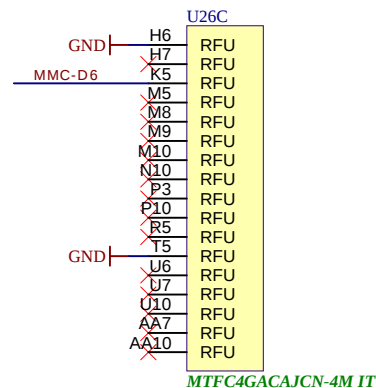
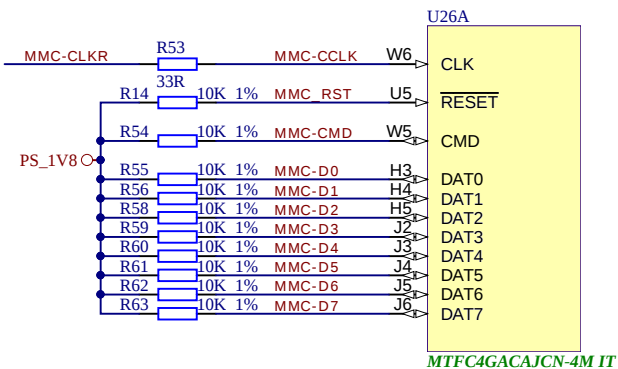
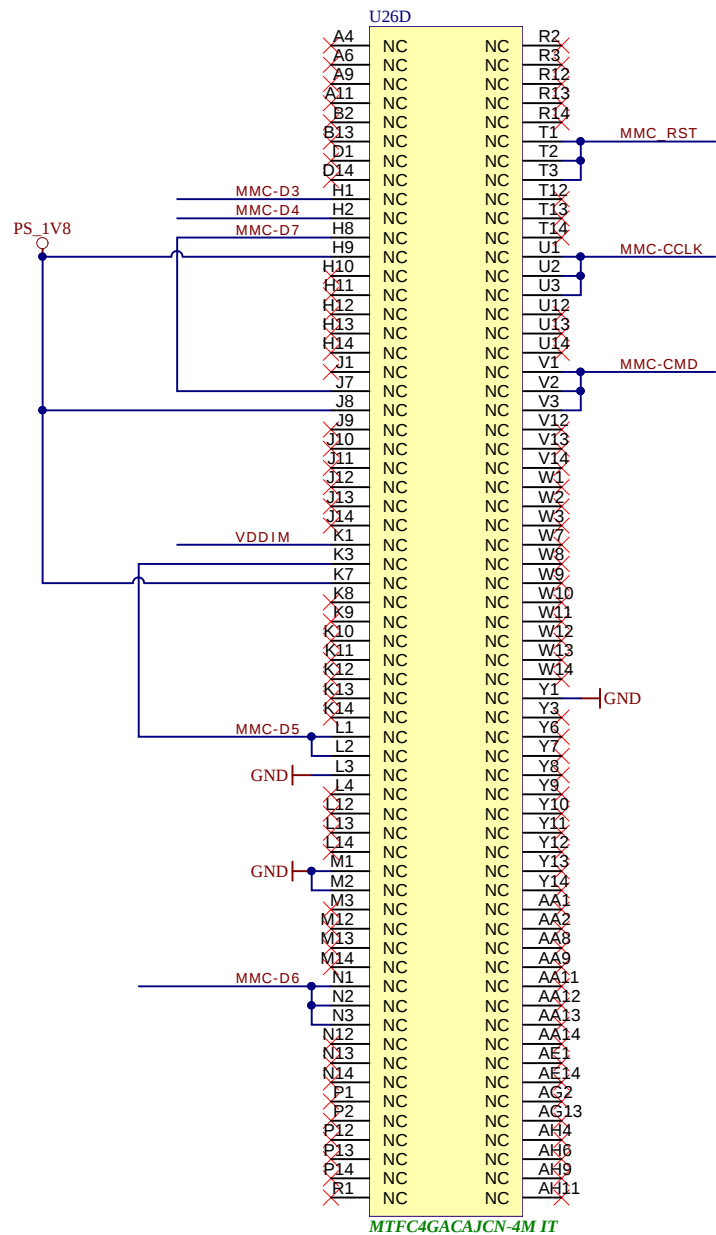


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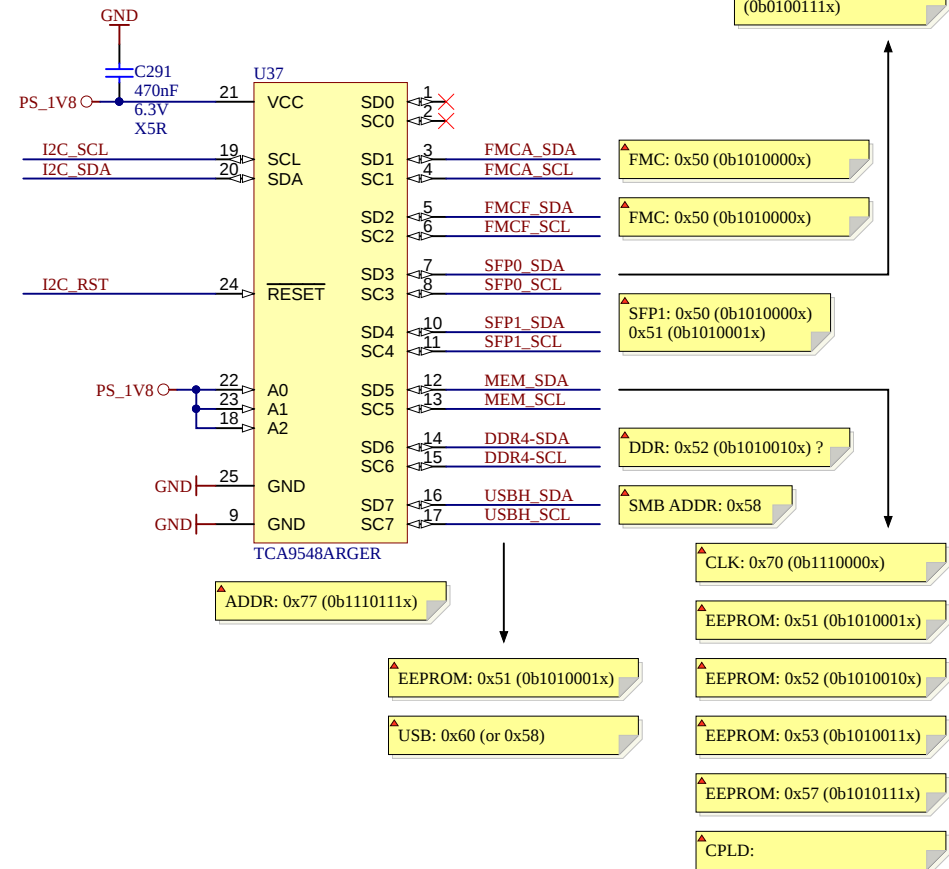
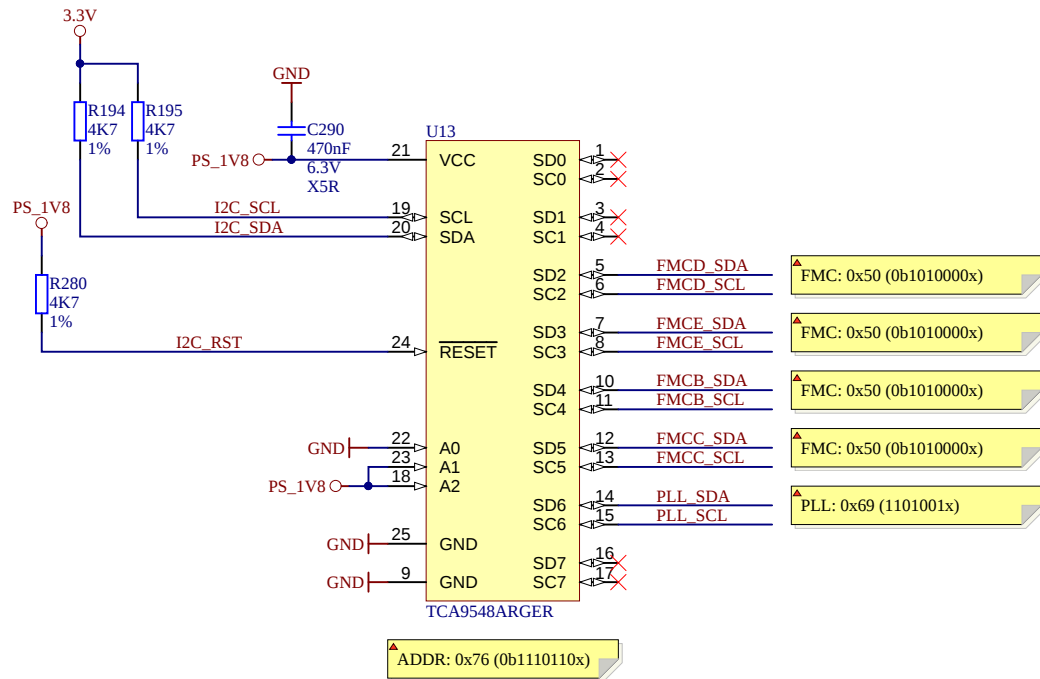
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A4	Number: TEB0911 ZU15EGA		Rev. 04
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Filename: eMMC.SchDoc			

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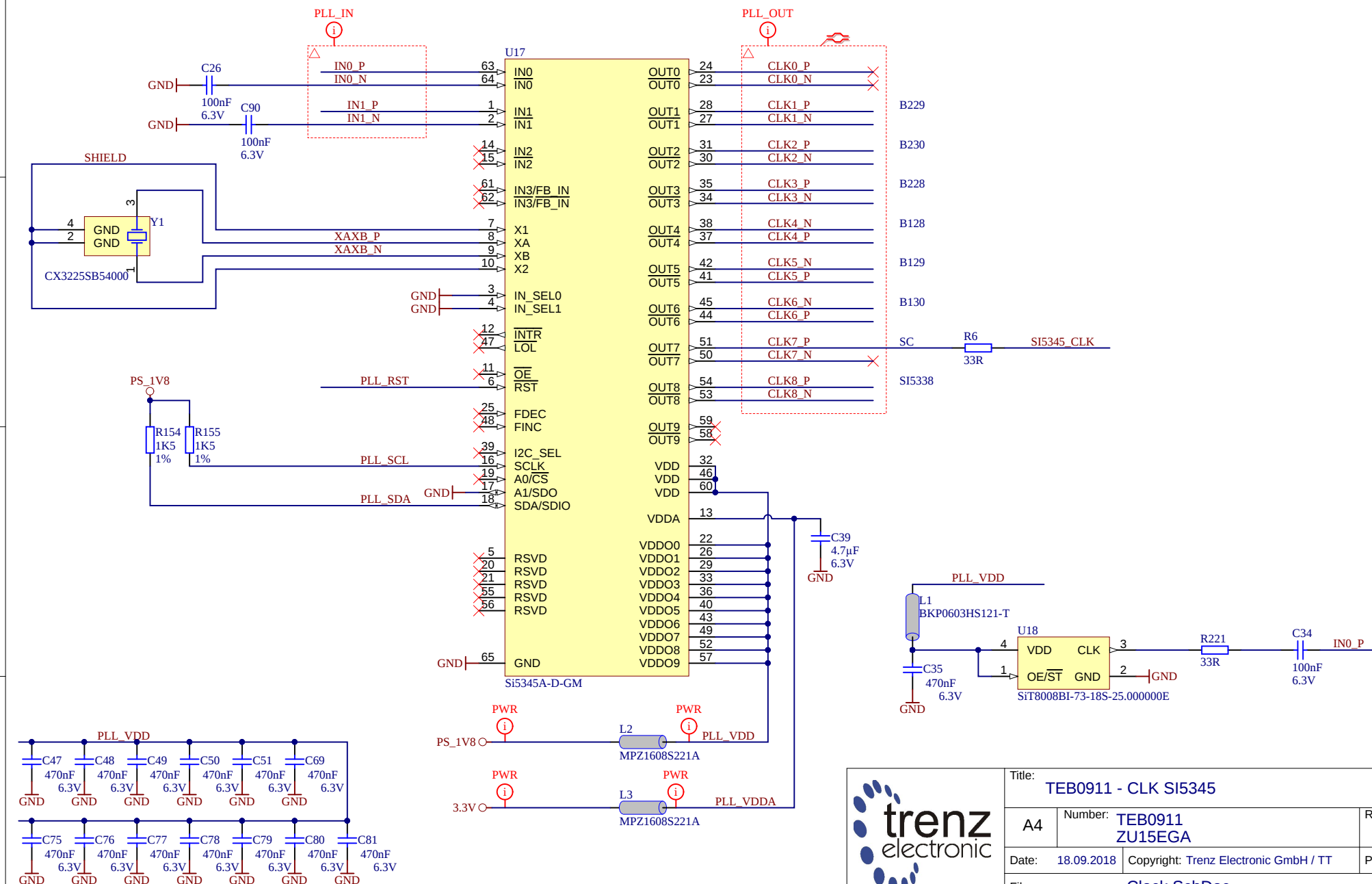
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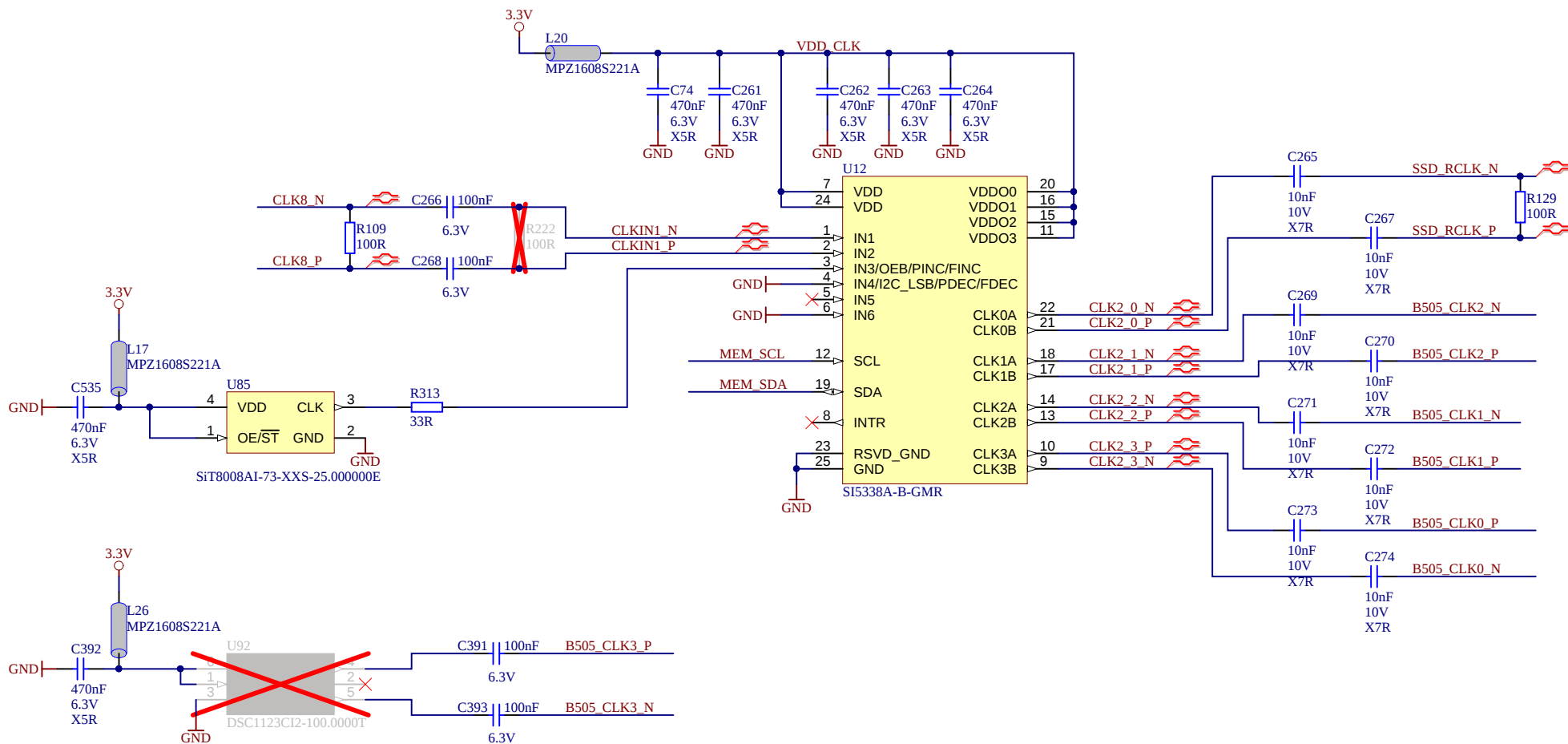
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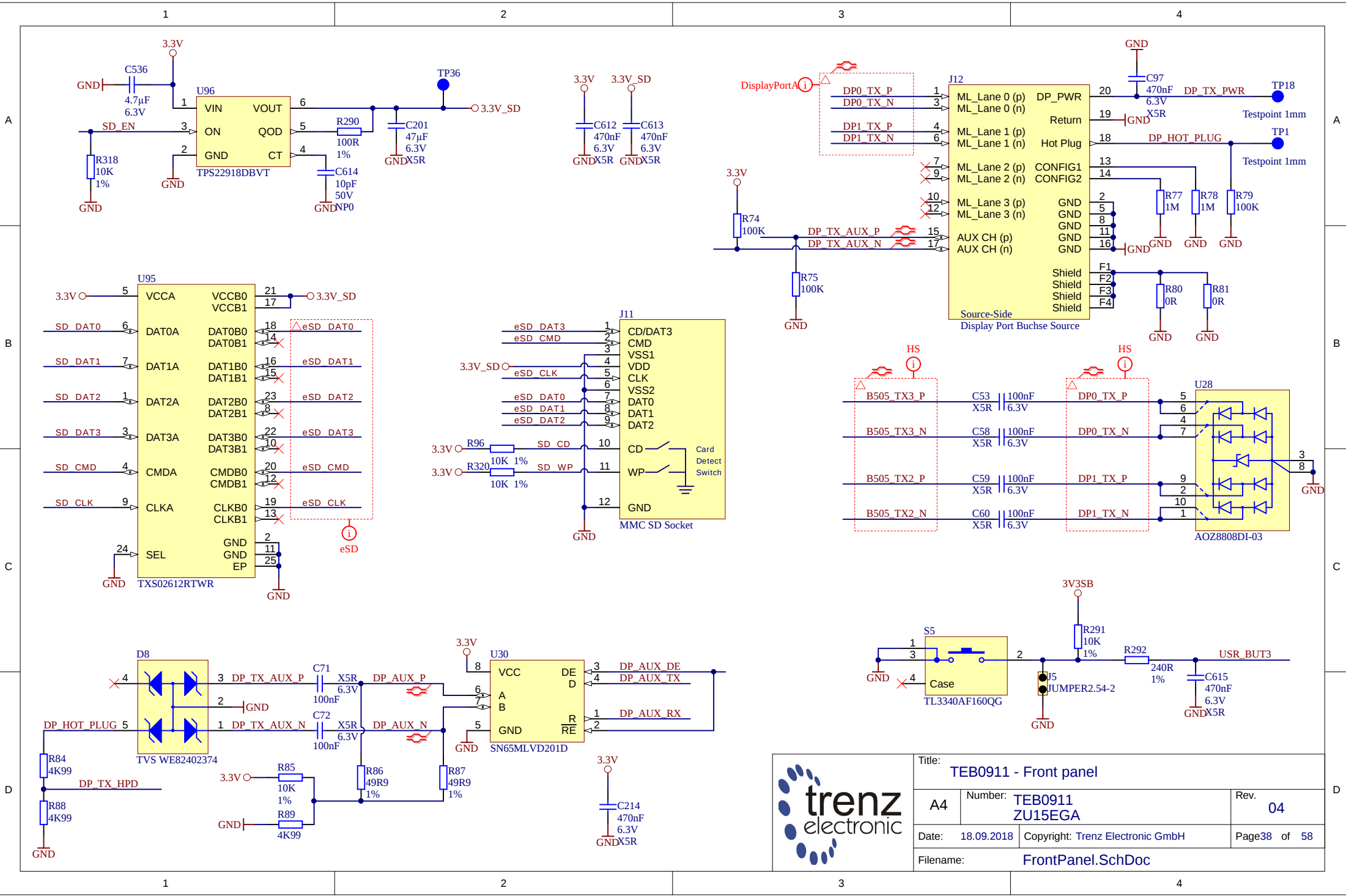
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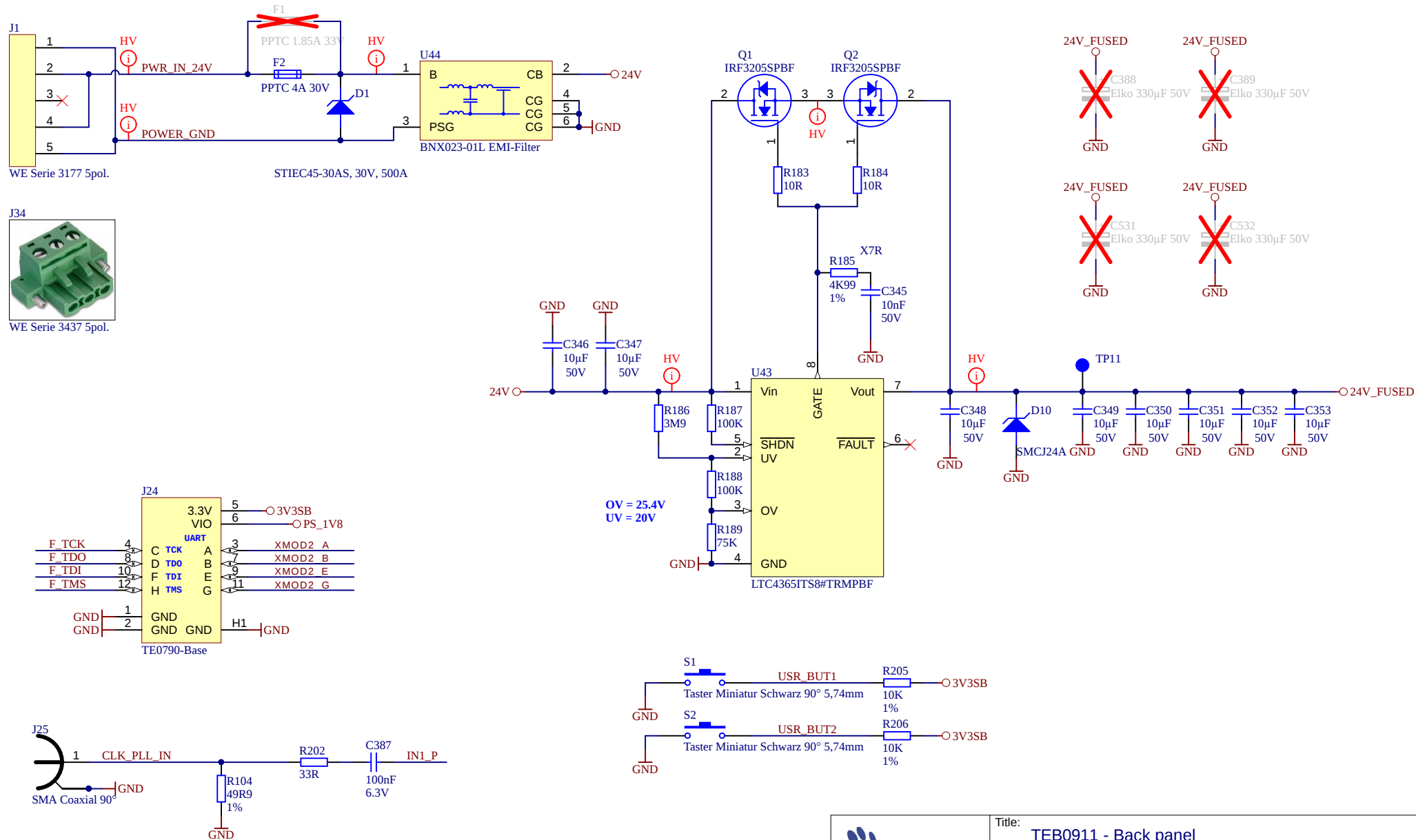
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Filename: Clock.SchDoc			



			Title: TEB0911 - CLK SI5338	
			A4	Number: TEB0911 ZU15EGA
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			Filename: Clock2.SchDoc	Page 37 of 58
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Title: TEB0911 - Front panel		
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Filename: FrontPanel.SchDoc		Page38 of 58



Title: TEB0911 - Back panel		
A4	Number: TEB0911 ZU15EGA	Rev. 04
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Filename: BackPanel.SchDoc		

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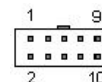
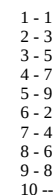
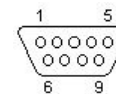
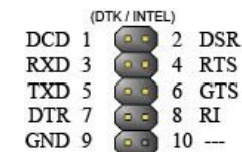
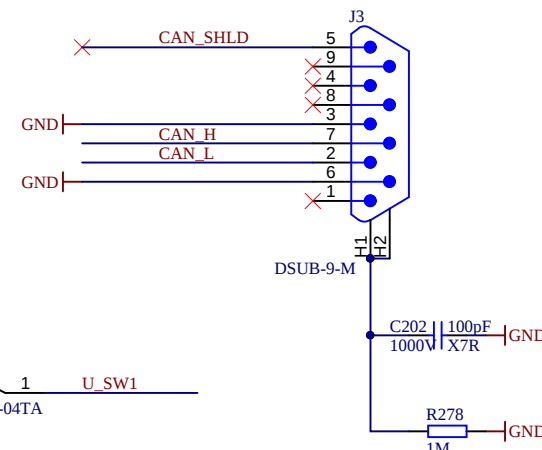
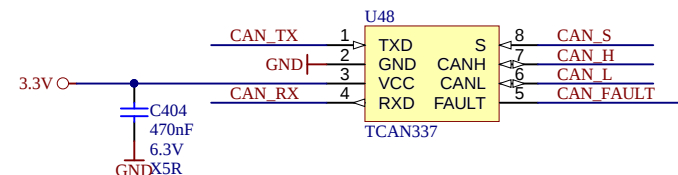
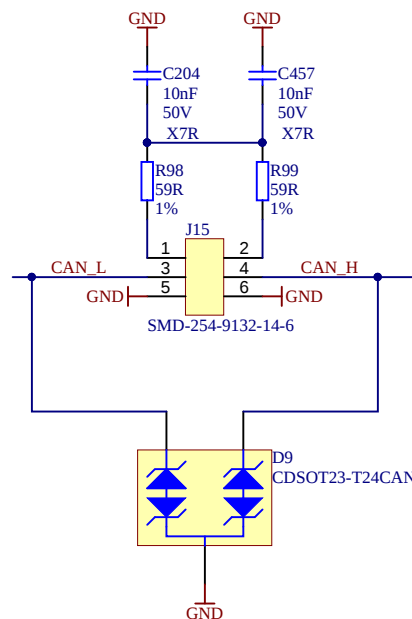
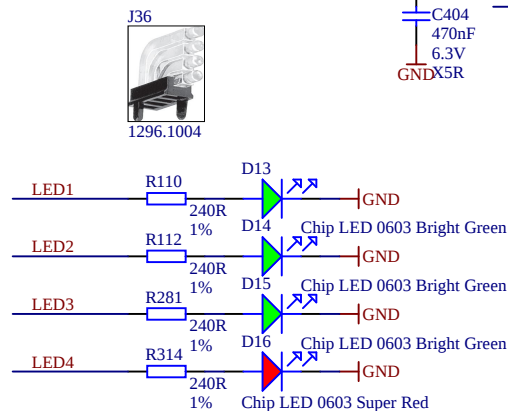
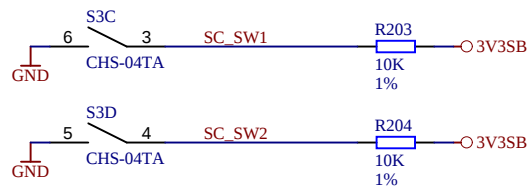
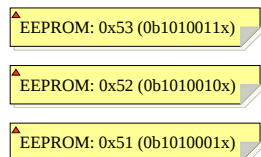
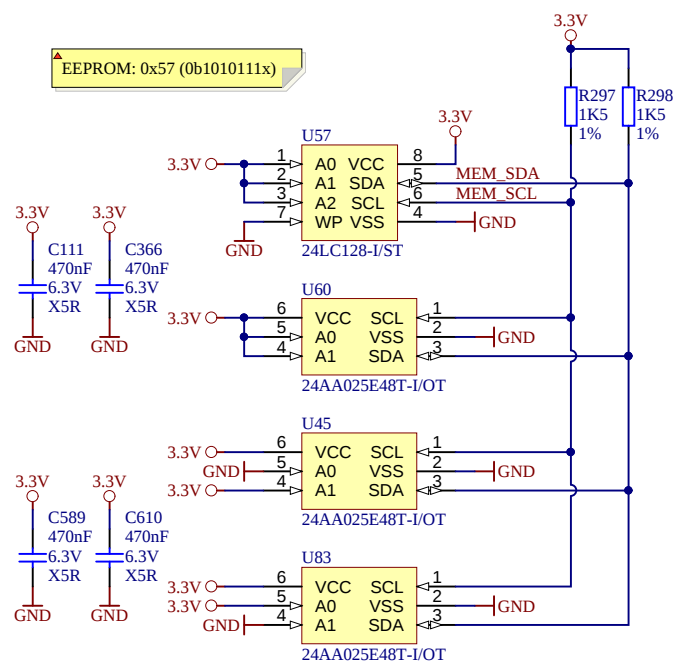
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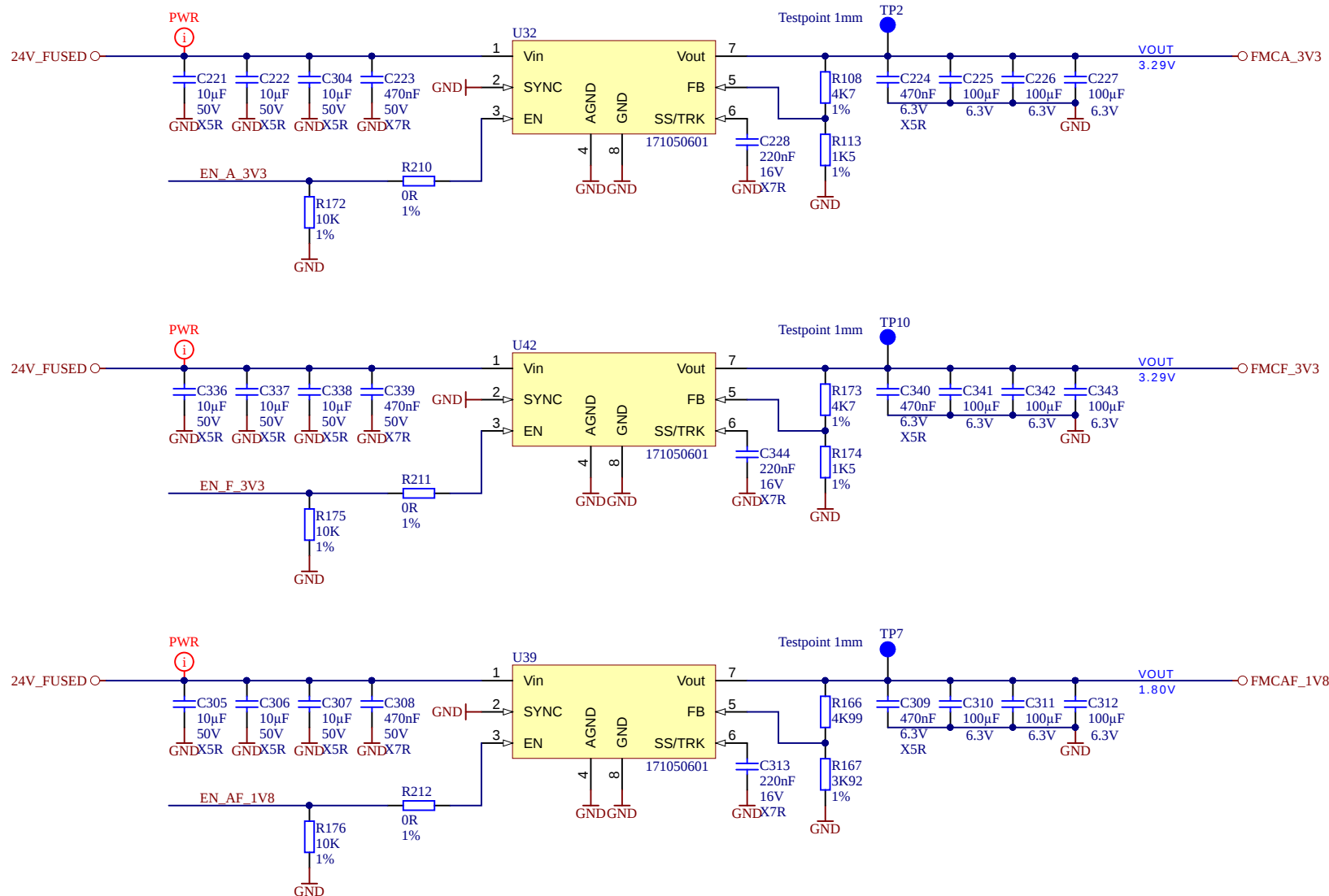
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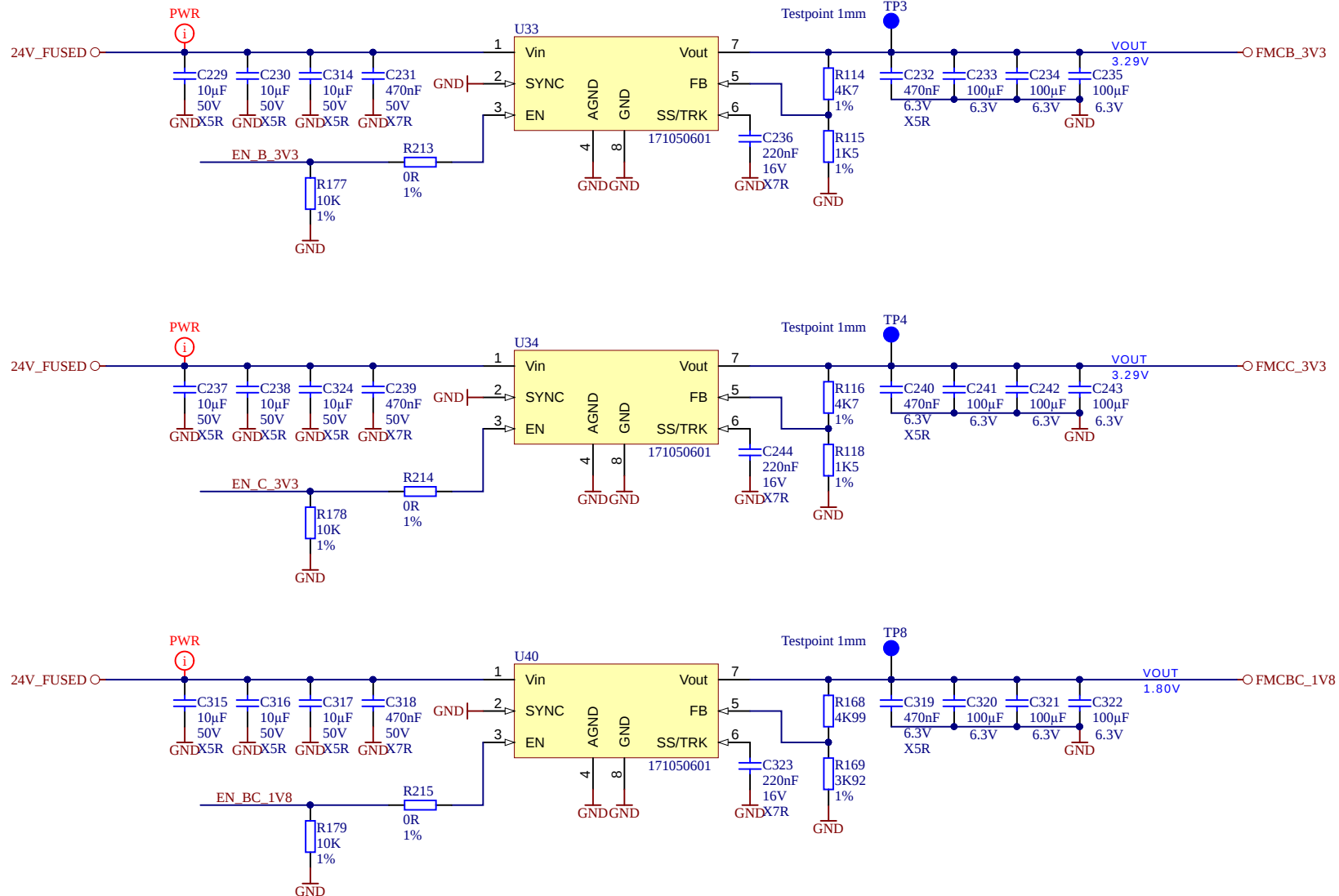
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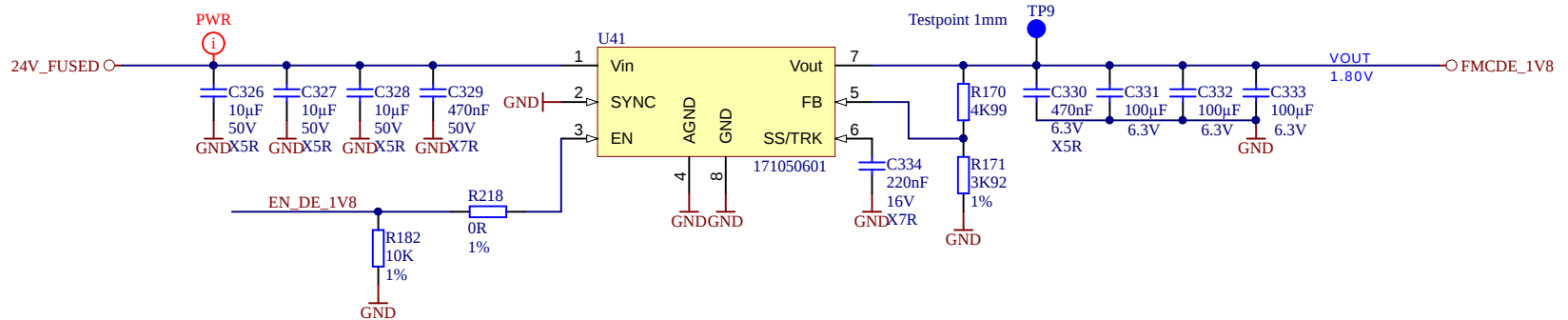
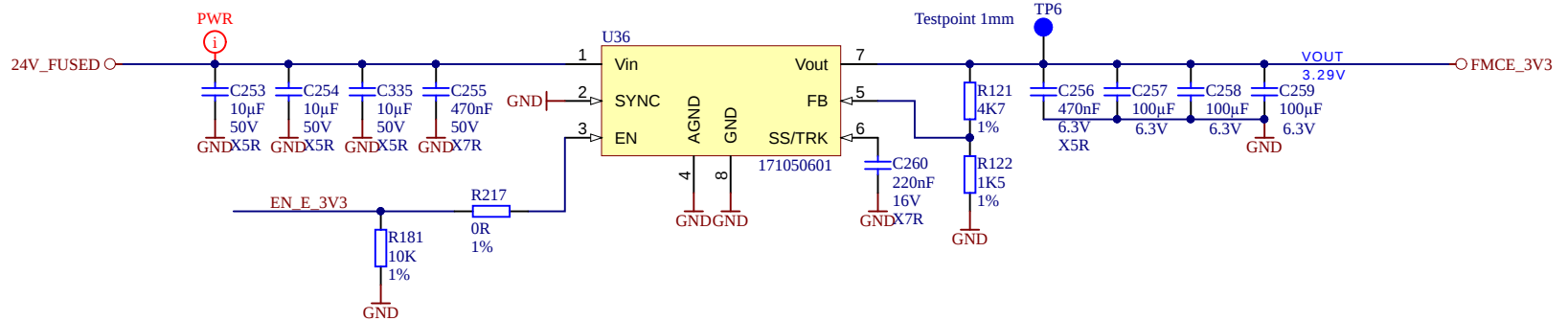
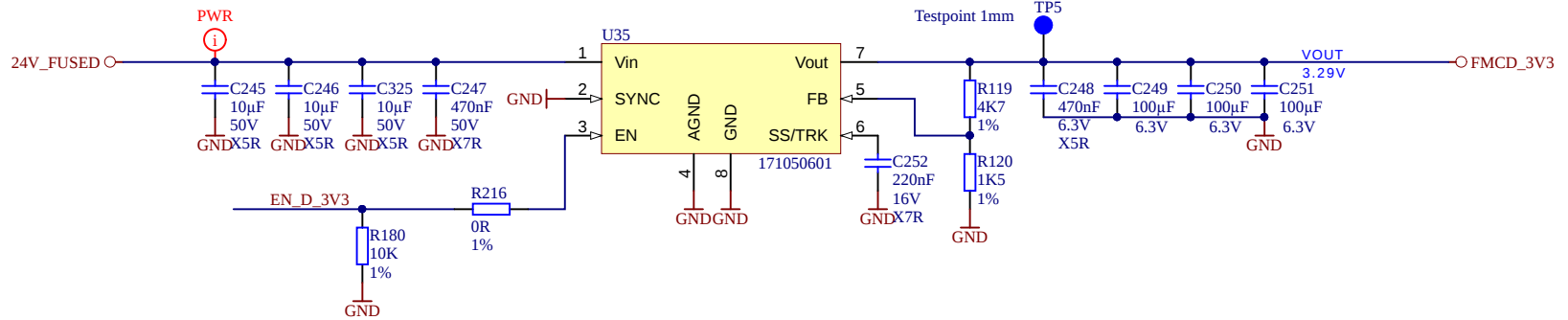
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Filename: MISC.schdoc		



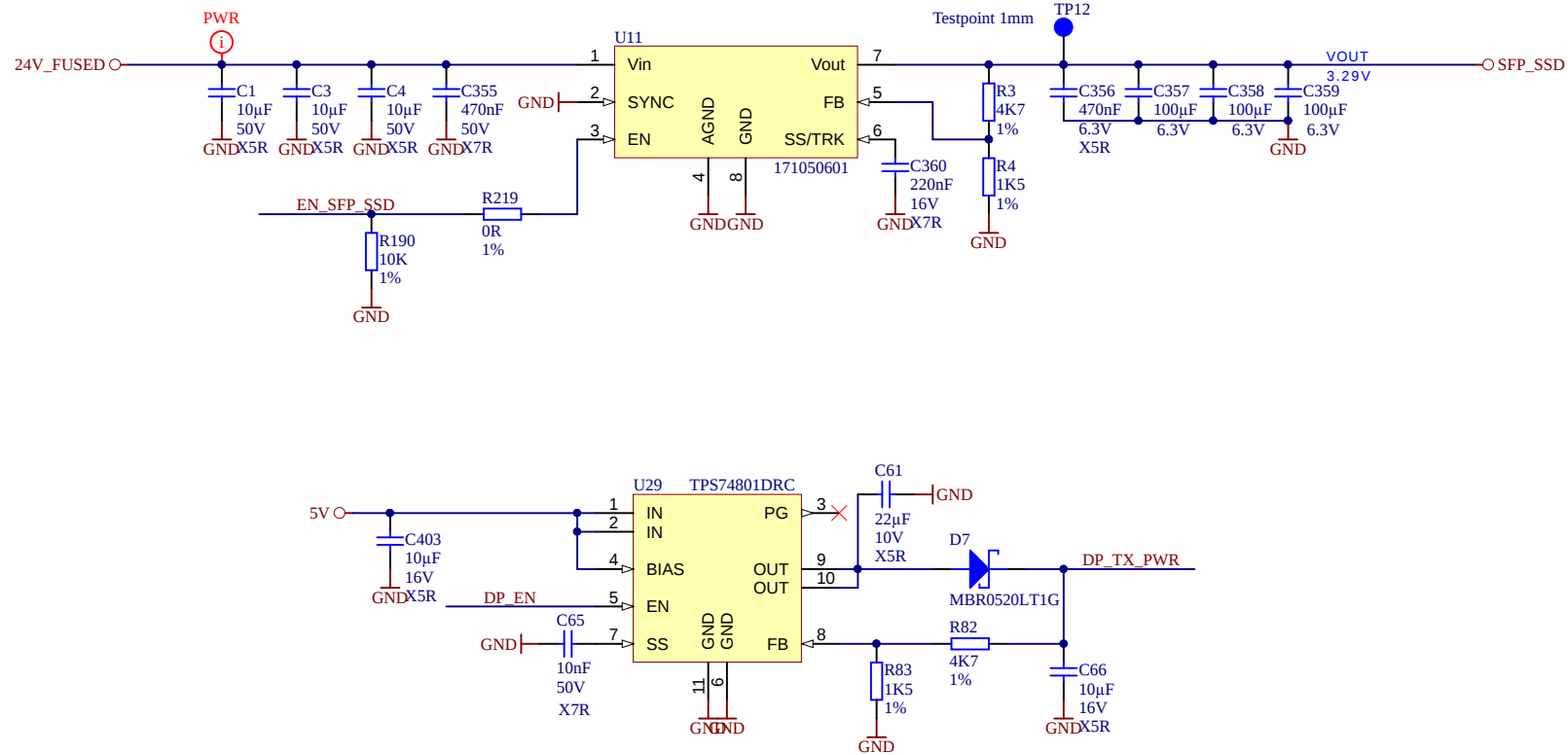
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	Date: 18.09.2018	Copyright: Trenz Electronic GmbH	Page41 of 58
	Filename: POWER_1.schdoc		



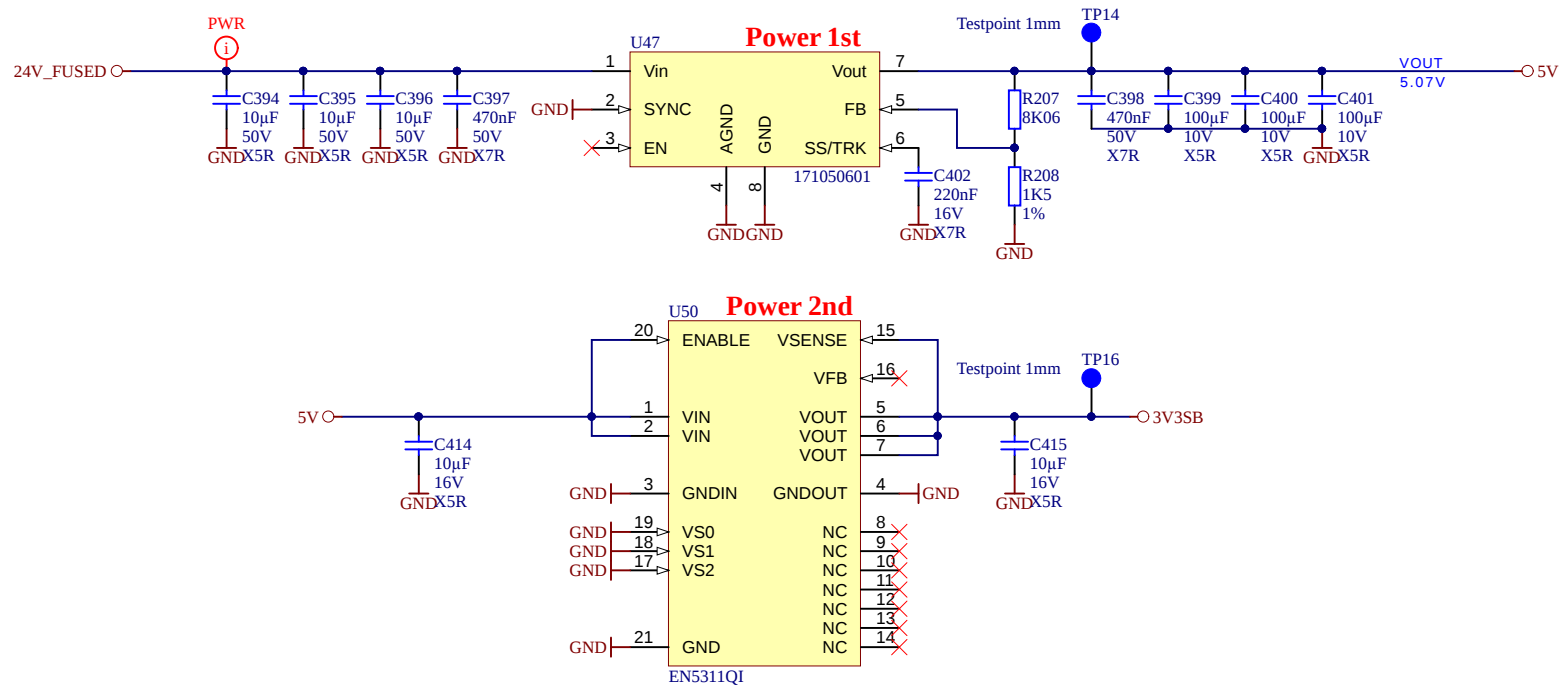
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	Date: 18.09.2018	Copyright: Trenz Electronic GmbH	Page 42 of 58
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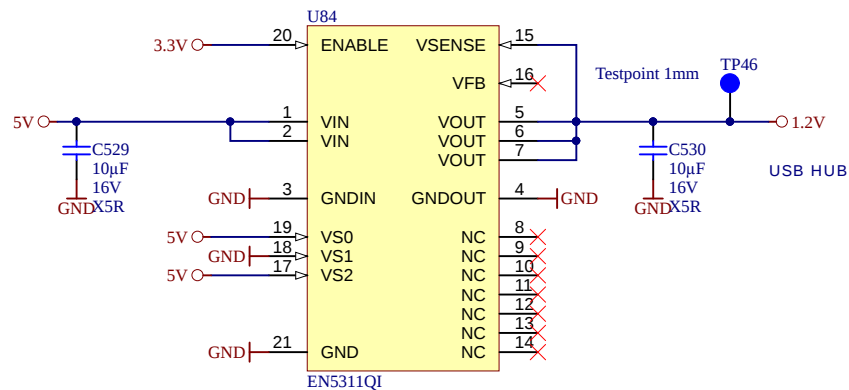
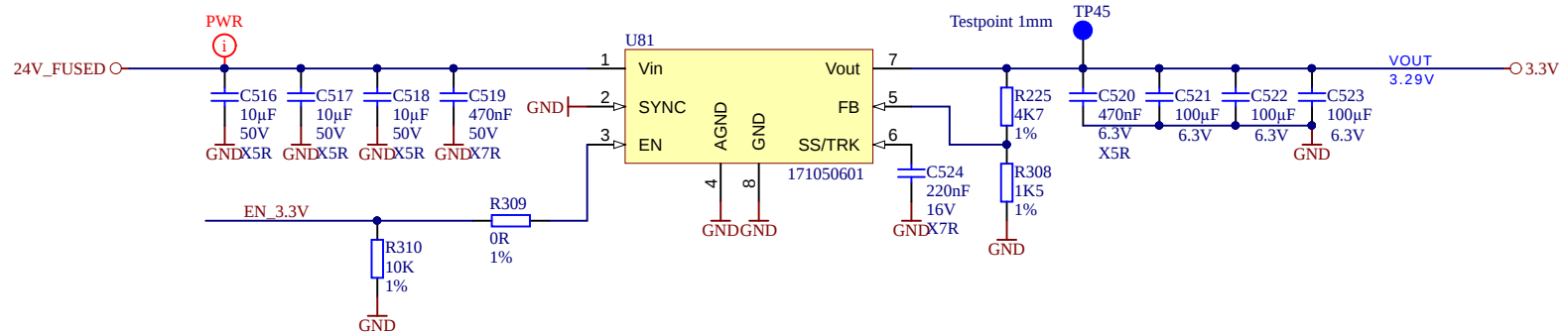
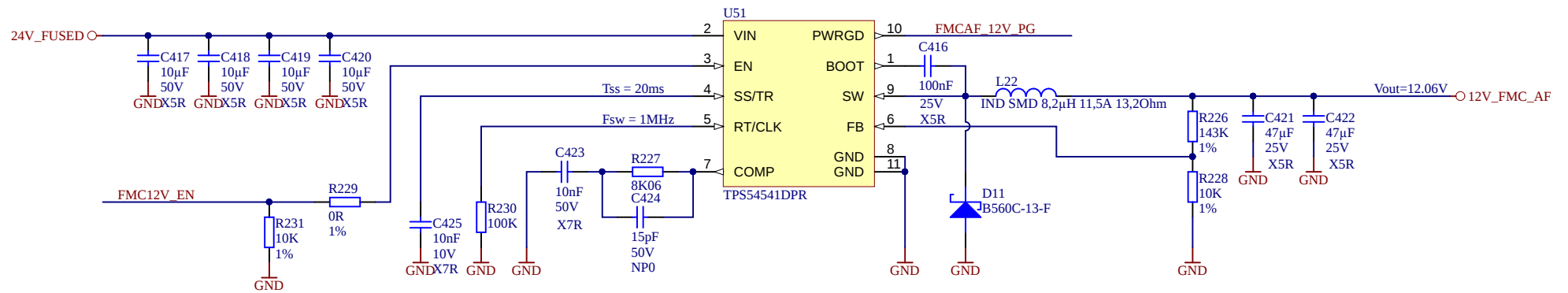
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Filename: POWER_3.schdoc					



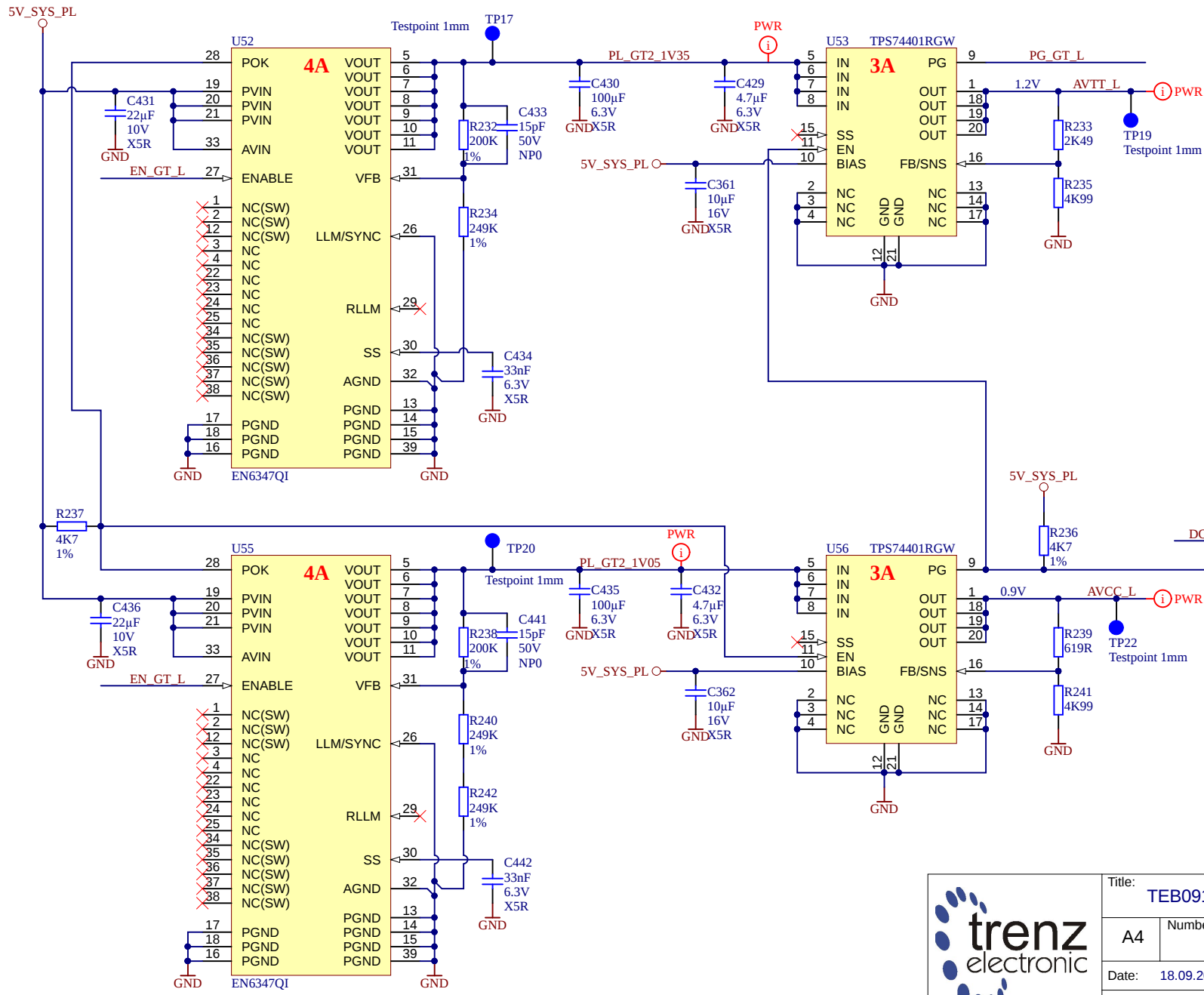
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		A4	Rev. 04
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Filename: POWER_4.schdoc			



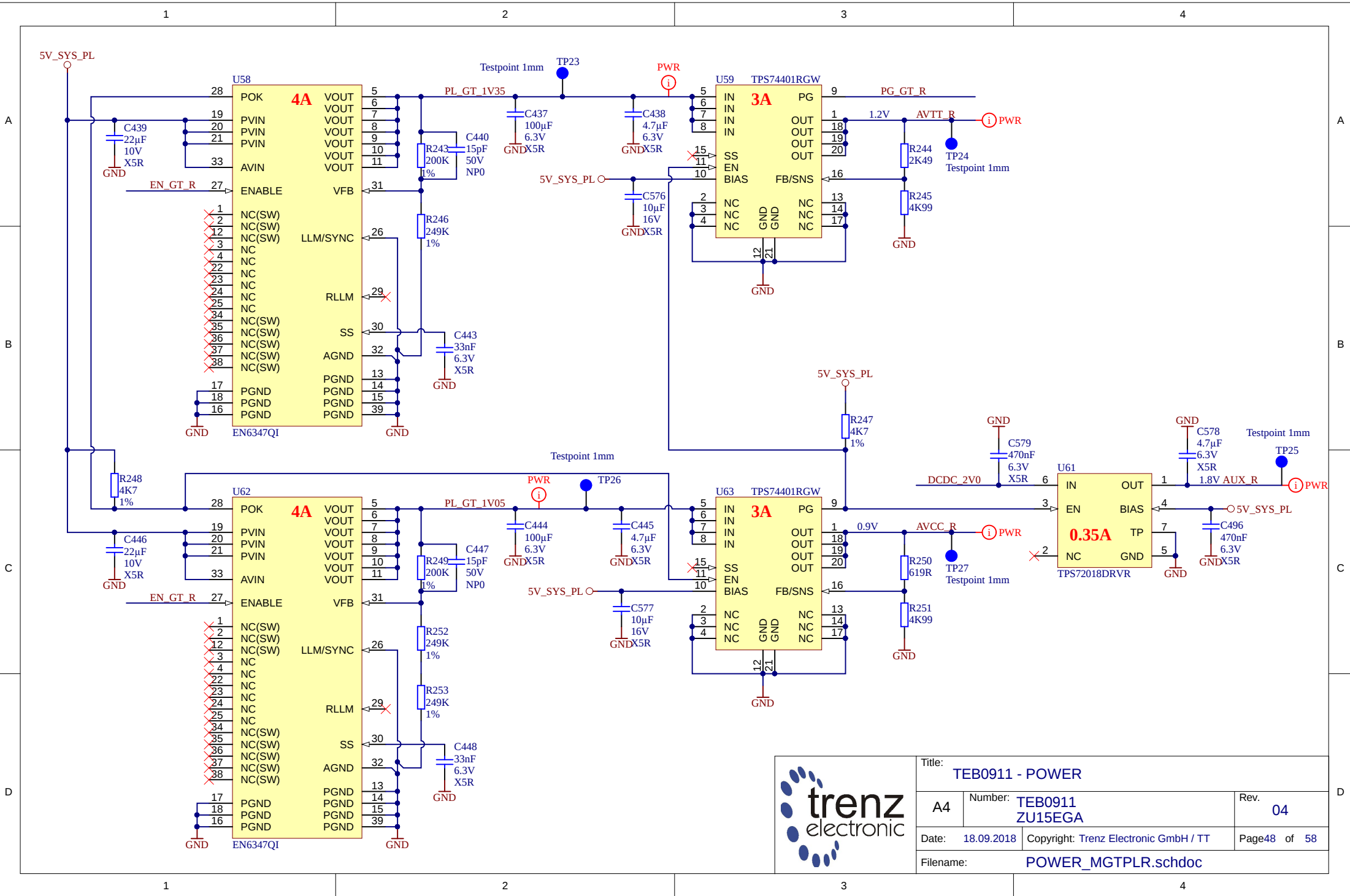
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Date: 18.09.2018	Copyright: Trenz Electronic GmbH		Rev. 04
Filename: POWER_5.schdoc		Page 45 of 58	

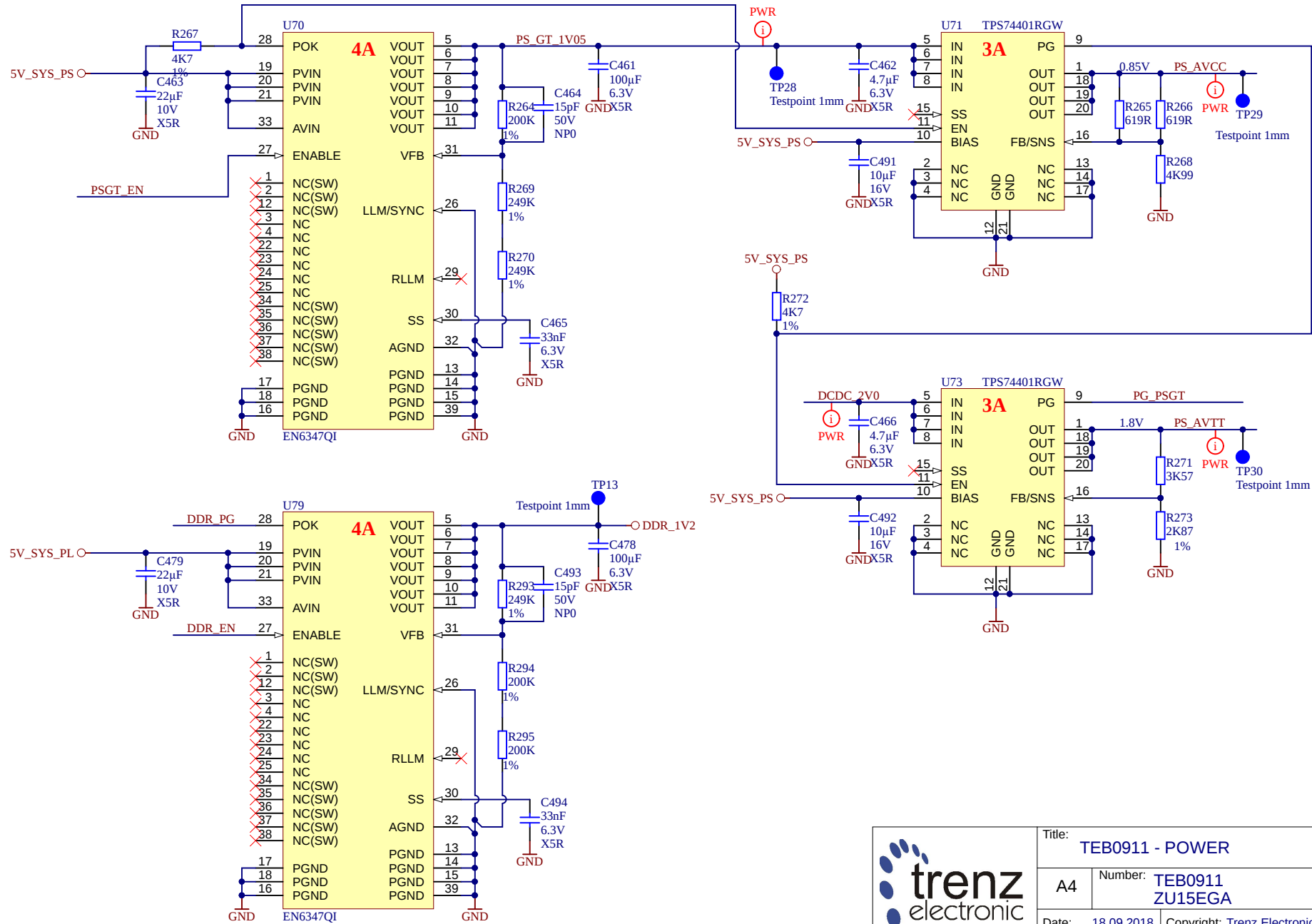


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Date: 18.09.2018	Copyright: Trenz Electronic GmbH		Rev. 04
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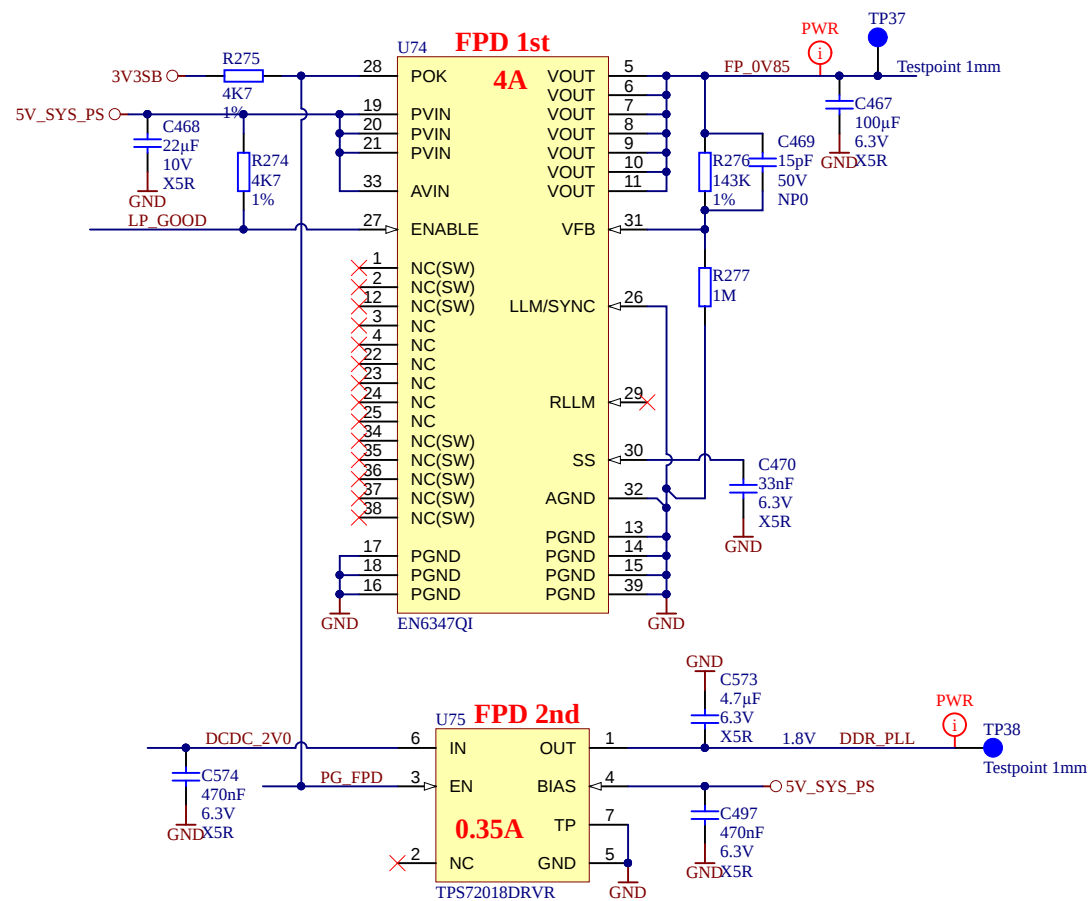


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Date: 18.09.2018	Copyright: Trenz Electronic GmbH / TT		Page 47 of 58
Filename: POWER_MGTPLL.schdoc			

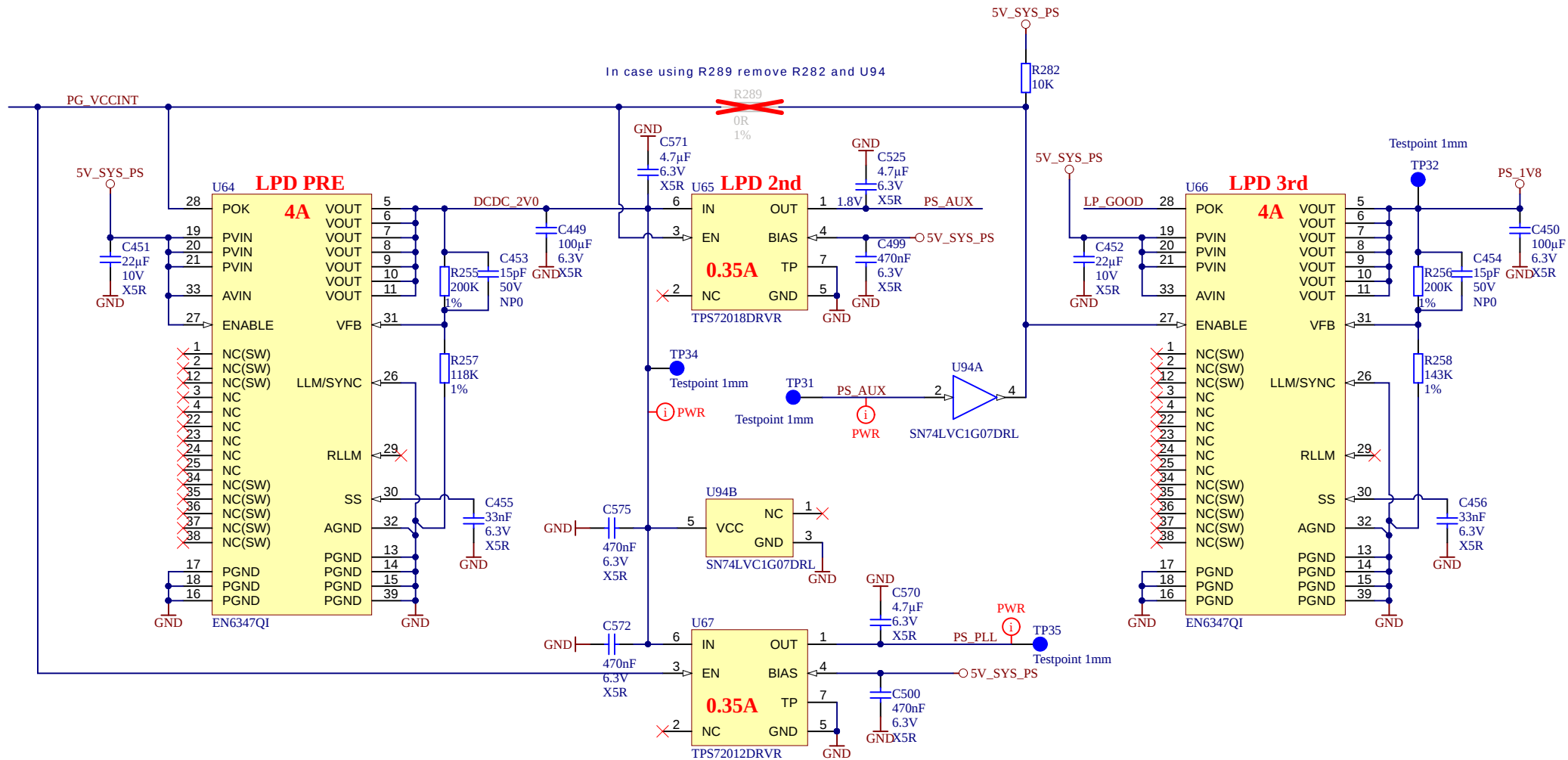




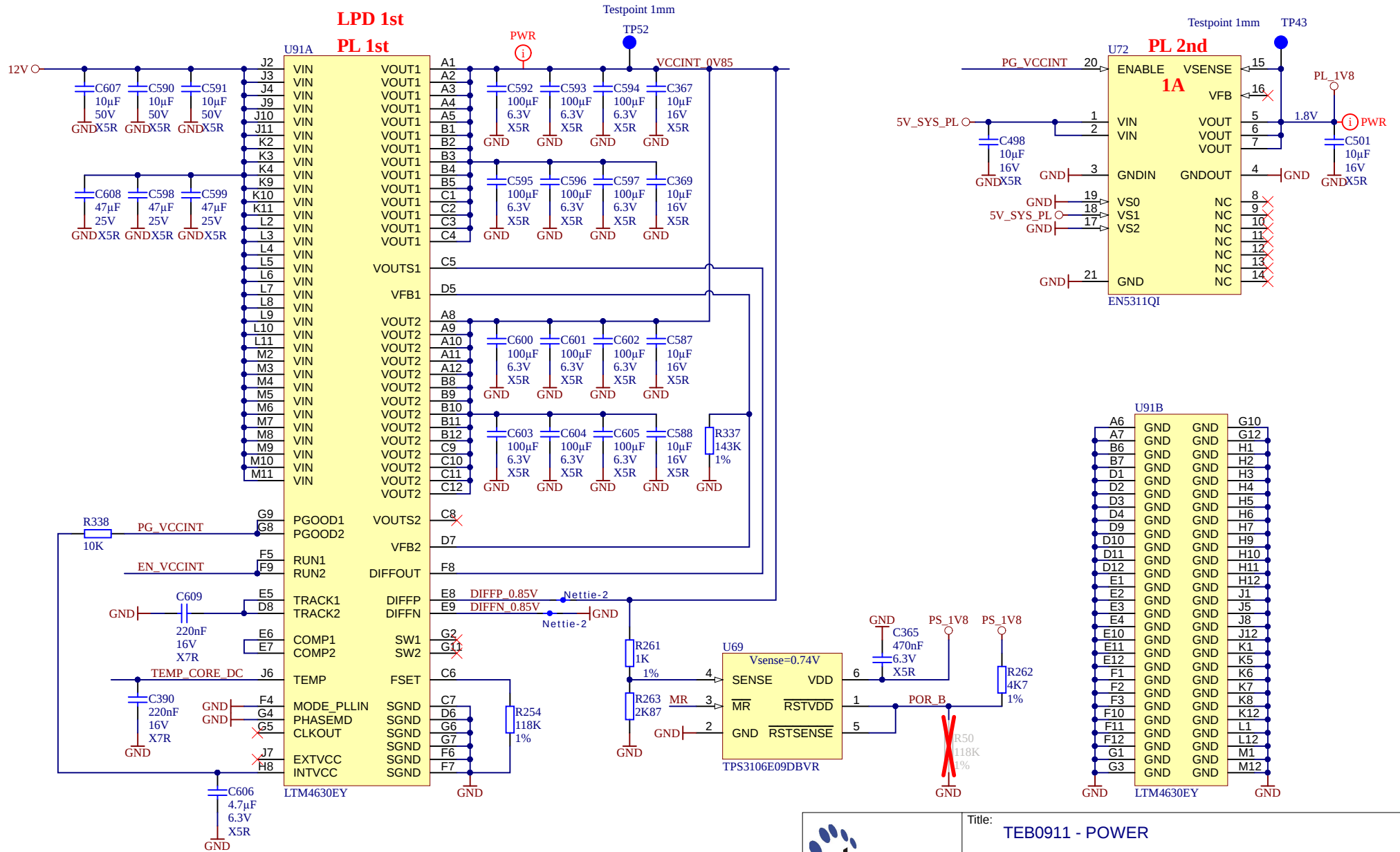
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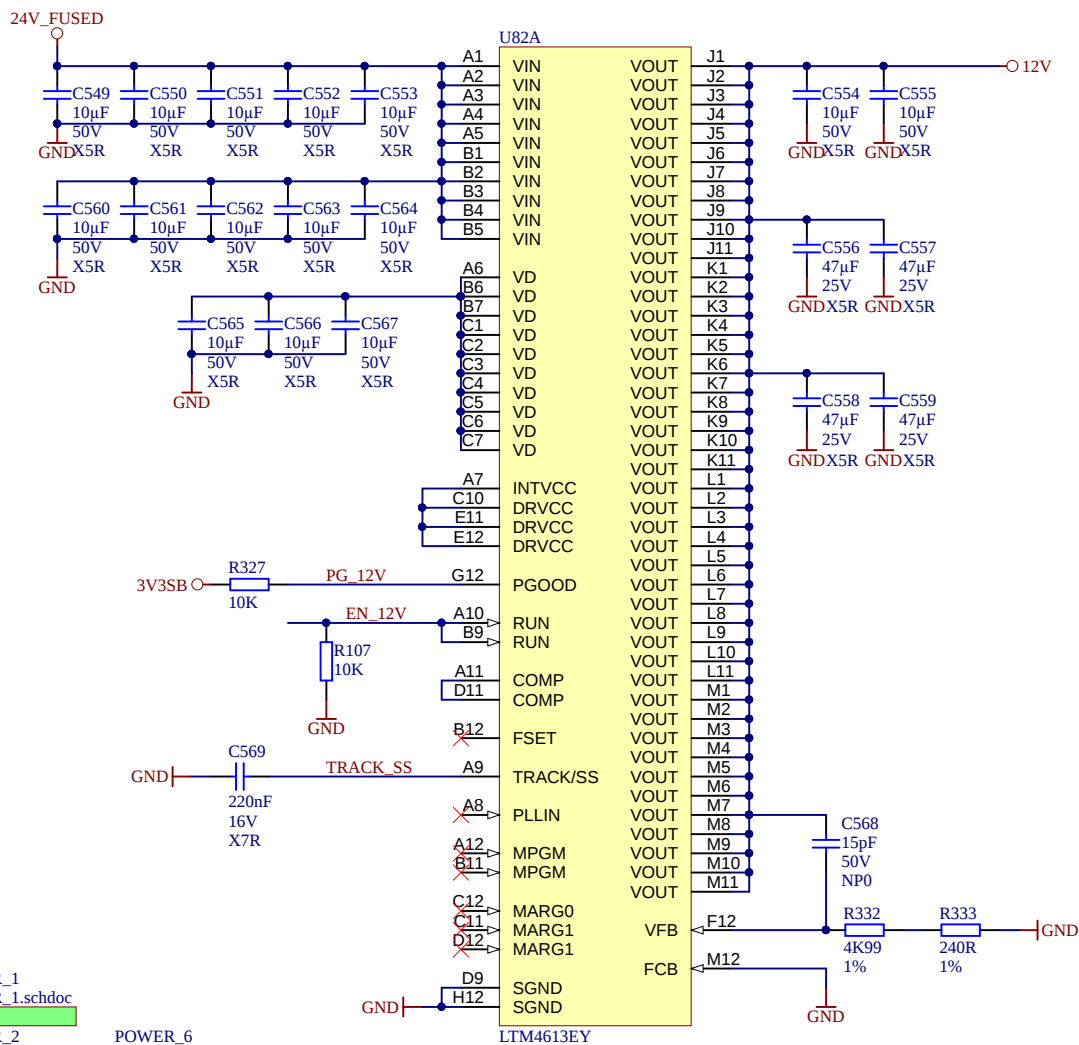
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	Date: 18.09.2018	Copyright: Trenz Electronic GmbH / TT	Page50 of 58
	Filename: POWER_PSFP.schdoc		



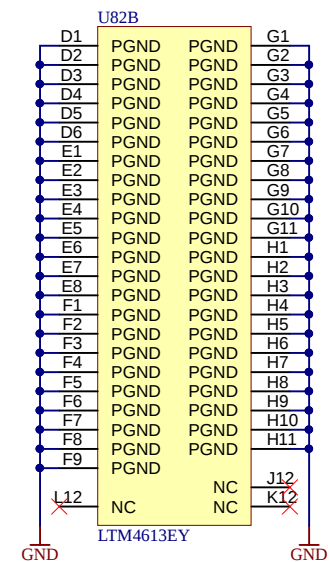
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		A4	Rev. 04
Date: 18.09.2018	Number: TEB0911 ZU15EGA	Copyright: Trenz Electronic GmbH / TT	
Filename: POWER_PSLP.schdoc		Page 51 of 58	



		Title: TEB0911 - POWER	
		A4	Number: TEB0911 ZU15EGA
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POWER_1.schdoc
POWER_2
POWER_2.schdoc
POWER_3
POWER_3.schdoc
POWER_4
POWER_4.schdoc
POWER_5
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PWR_SYS.SchDoc
PWR_CORE
PWR_CORE.SchDoc



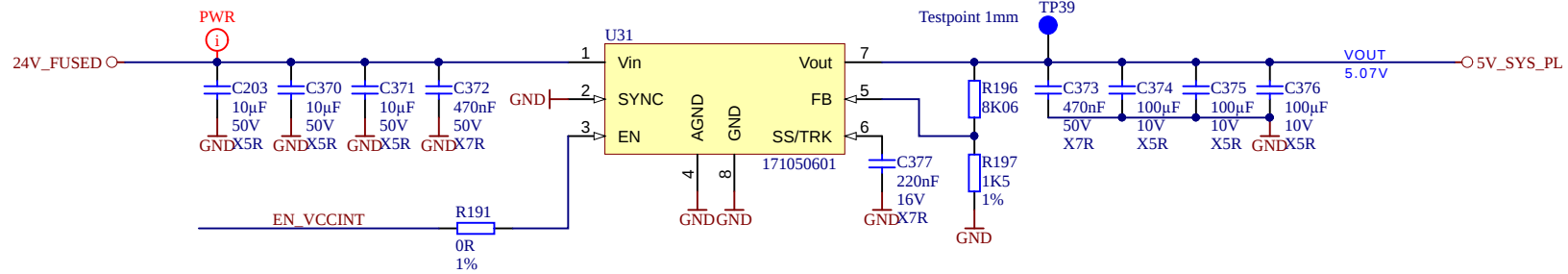
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Filename: PWR_IN.SchDoc			

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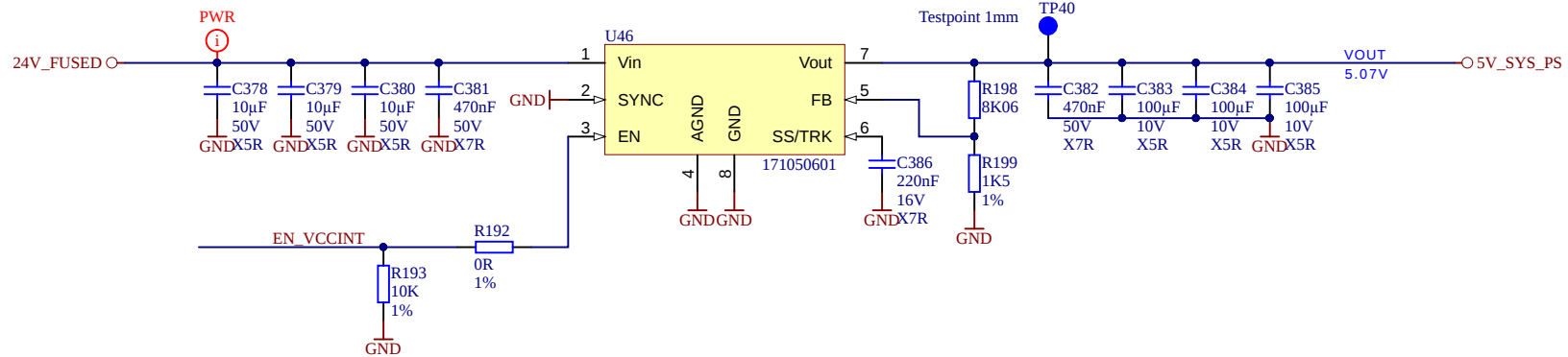
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POWER_MGTPS
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POWER_MGTPLR
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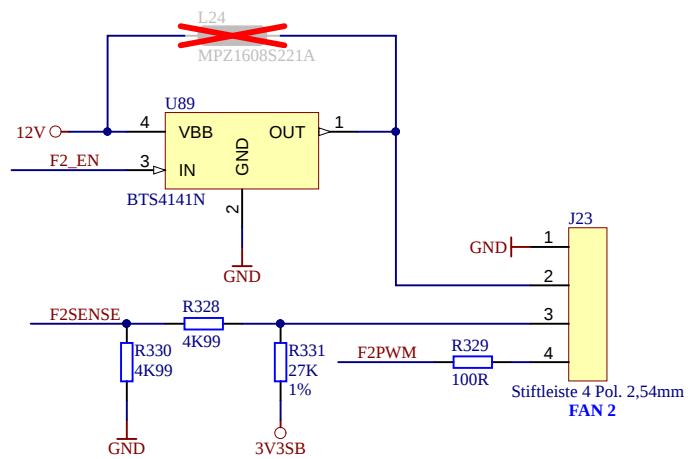
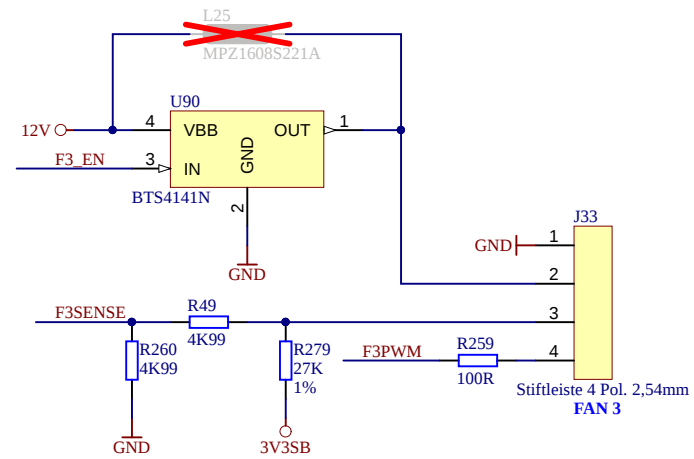
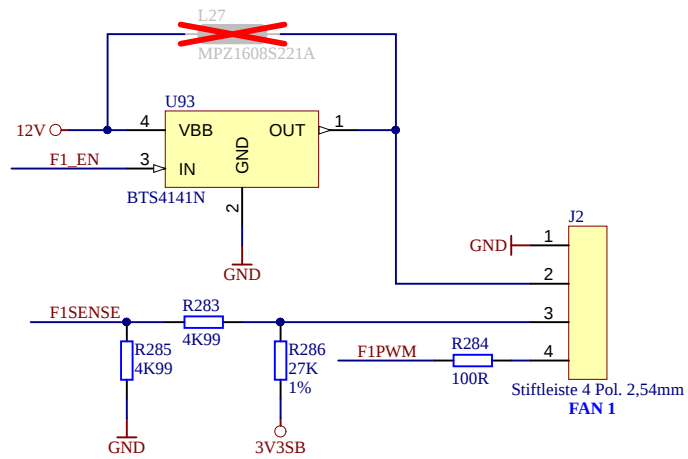
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Filename: PWR_SYS.SchDoc		

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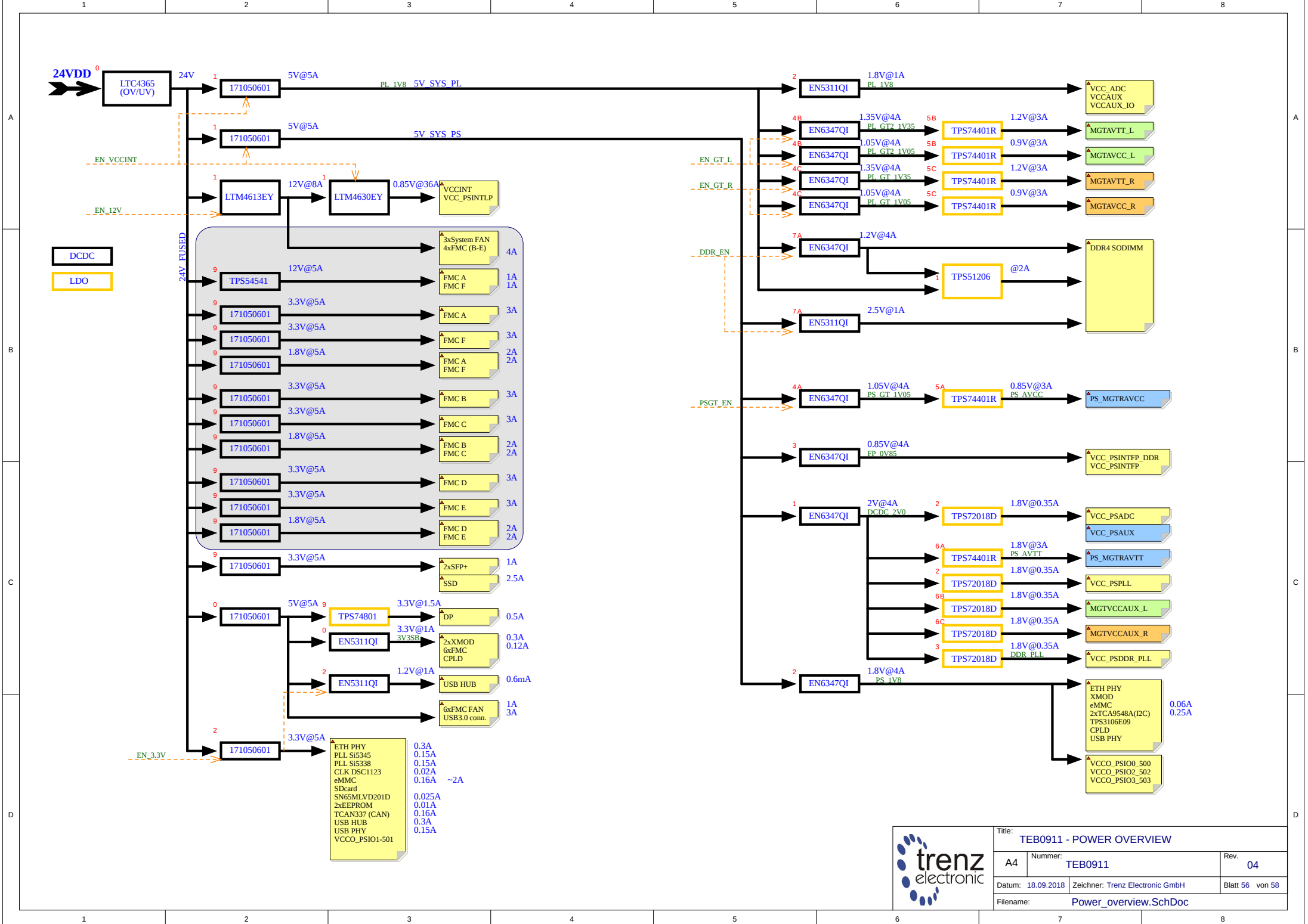
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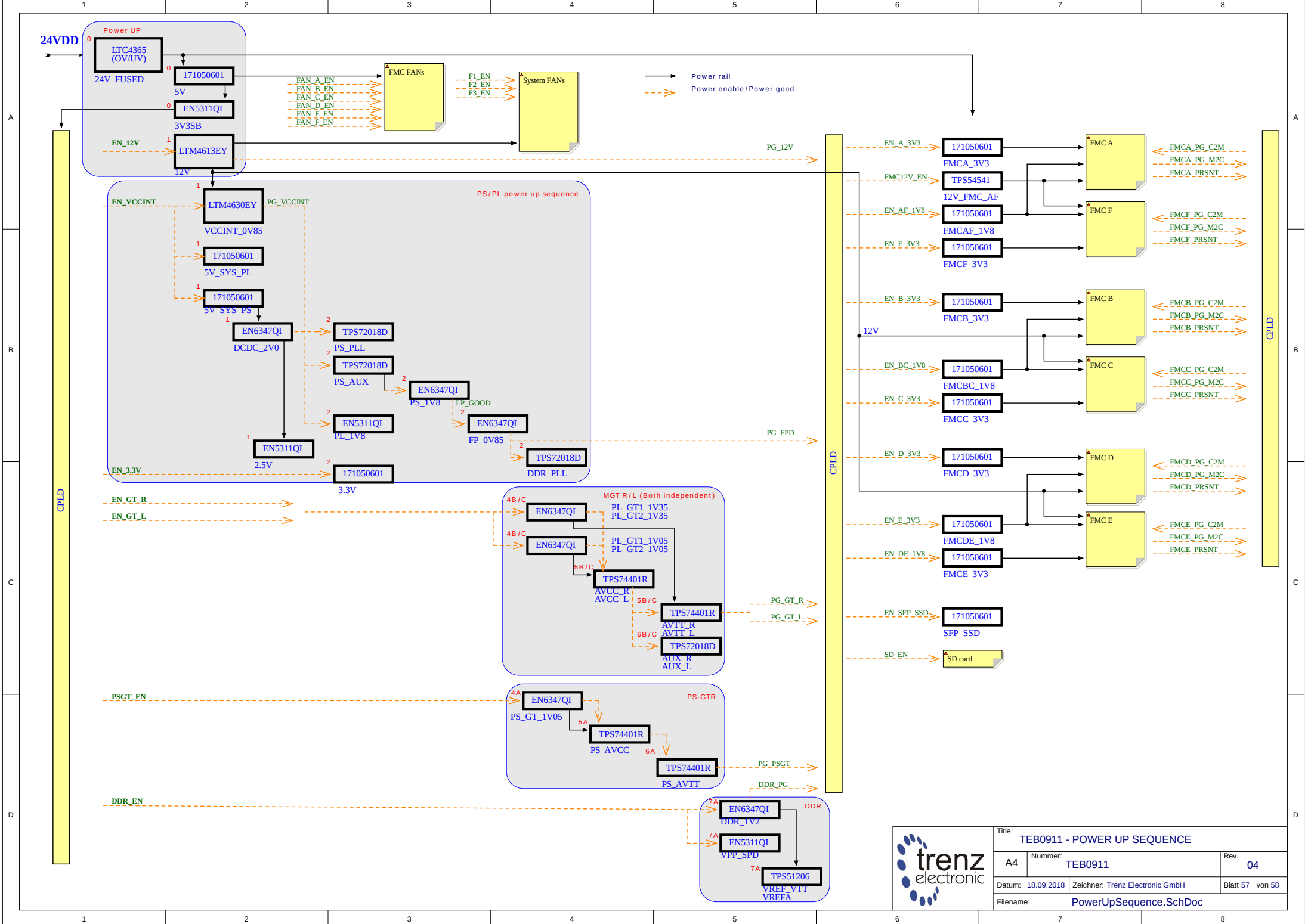
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		Number: TEB0911 ZU15EGA	Rev. 04
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Title: TEB0911 - POWER UP SEQUENCE		
A4	Number: TEB0911	Rev. 04
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Filename: PowerUpSequence.SchDoc		

1	2	3	4																
A	REV02: 1. 2 CPLDs replaced with LCMXO2-7000HC-4FG484C (U27) 2. Single SFP connector removed. MGT lanes B129_TX/RX_1 connected to FMC F 3. DCDC U45 (power supply of 2xSFP and 1xSFP connectors) removed. 2xSFP powered by U11. 4. HDMI: lane B505_TX2 connected to DP1_TX and lane B505_TX3 to DP0_TX. 5. Supervisor U69 TPS3106E33 replaced with TPS3106E09 6. U17 (SI5345): IN_SEL0/1 disconnected from CPLD and connected to GND 7. Added new clock source U87 (SiT8008AI-73-XXS-25.000000E). Connected to CPLD. Not fitted 8. I2C pull-ups R154/R155: changed from 4.7k to 1.5kOhm 9. FAN: R285, R330, R260 changed to 27K (F*SENSE) 10. Added fuse F2 (4A). Fuse F1 (1.85A) "not fitted" 11. C354 (PWR_IN_24V/GND) deleted 12. Removed clock loop-back OUT9P/N - IN2P/N (U17, SI5345) 13. OUT7 (P) of U17 (clock source SI5345) connected to CPLD U27 Bank 5. 14. Signal SD Card detect SD_CD connected to CPLD, MIO45 connected to CPLD 15. Signals FMC*_PG_C2M(M2C) pulled-up to 3V3SB (was FMC*_3V3) 16. CLK_OUT U15 (USB PHY), serial resistor value R13 changed from 33 to 0 Ohm 17. EN5311QI: Cout value changed from 22uF to 10uF 18. BOM optimization 19. Added connections from CPLD to FMC A and F (x_LA06_SC - x_LA33_SC) 20. Net EN_VCCINT connected also to DCDC U31 (5V_SYS_PL) and U46 (5V_SYS_PS) 21. Added 2 2kb EEPROM (U45/U43) 22. Added power-up sequencing 23. MIO6 connected to CPLD 24. Signals EN_SFP was renamed to EN_SFP_SSD, 12V_FMC was renamed to 12V_FMC_AF, FMC12V_PG to FMCAF_12V_PG 25. Nets names F_LA02/03/04 was swapped. REV03: 1. Signals C_LA27_P/N swapped: C_LA27_P connected to pin R10 (IO_L11P_T1U_N8_GC_67), C_LA27_N connected to R9 (IO_L11N_T1U_N9_GC_67) of U1 (XCZU9EG-1FFVB1156) REV03a (17.11.2017): 1. Flash N25Q256A11E1240E changed to N25Q512A11G1240E. REV04: 1. Added SDIO level translator TXS02612RTWR (U95) and 33Ω series resistors on SDIO lines from FPGA side. 2. Added user button S5 and jumper J5 (connected to U27 pin W17). 3. New FAN switches U76-78/U97-99: BTS4141N. 4. New FANs: AFB04512MA. Was added an option to use 5V or 12V (default) power rail. 5. Replaced EOL components: - TPS27082LDDCR -> TPS22918DBVT (U96) - ESD3V3U4ULCE6327XTSA1 -> AOZ8808DI-03 (U28) 6. New SFP+ connector: 2007492-5 instead of 1-2007492-5 REV04a (30.08.2019): 1. Resistor R65 (USB VBUS) replaced by 1K.			A															
B				B															
C				C															
D	 <table><tr><td colspan="3">Title: TEB0911 - REVISION CHANGES</td></tr><tr><td>A4</td><td>Number: TEB0911 ZU15EGA</td><td>Rev. 04</td></tr><tr><td>Date: 18.09.2018</td><td colspan="2">Copyright: Trenz Electronic GmbH</td></tr><tr><td colspan="2">Page58 of 58</td><td></td></tr><tr><td colspan="3">Filename: Revision_changes.SchDoc</td></tr></table>			Title: TEB0911 - REVISION CHANGES			A4	Number: TEB0911 ZU15EGA	Rev. 04	Date: 18.09.2018	Copyright: Trenz Electronic GmbH		Page58 of 58			Filename: Revision_changes.SchDoc			D
Title: TEB0911 - REVISION CHANGES																			
A4	Number: TEB0911 ZU15EGA	Rev. 04																	
Date: 18.09.2018	Copyright: Trenz Electronic GmbH																		
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